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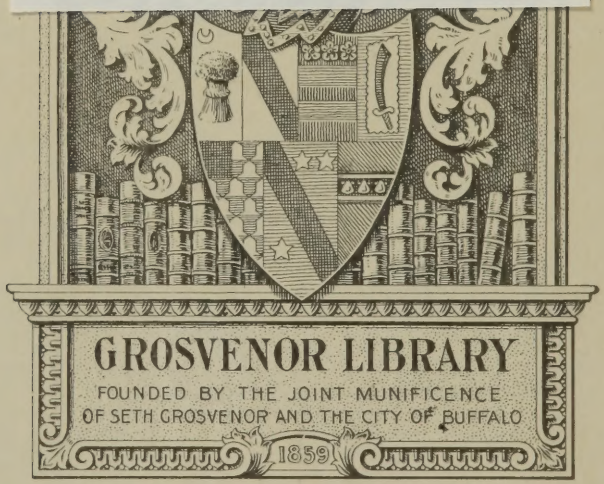

A

PRACTICAL TREATISE

ON THE

SEXUAL DISORDERS OF MEN.

BY

BUKK G. CARLETON, M. D.,

Genito-Urinary Surgeon and Specialist to the Metropolitan Hospital and Polyclinic of the Metropolitan Hospital; Consulting Genito-Urinary Surgeon to the Hahnemann Hospital, etc., New York.

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PREFACE.

THE physical and mental manifestations of the sexual disorders of men have long been an unfailing source of profit to unscrupulous practitioners and charlatans, who, with their literature and advice, have often caused untold misery and almost irreparable damage.

This class of ailments being so frequent and intractable the author believes that a more complete understanding of them with their manifold complications and reflexes will lead to a better appreciation of their gravity. With this view in mind, this little volume is presented to the medical profession.

In no variety of illness is careful prescribing so essential as in disorders of the generative organs. In order to more fully cover this important feature in the treatment the last thirty-four pages of this manual are devoted to the symptomatology and adaptability of the drugs found useful in sexual infirmities. The symptomatic and clinical hints of the remedies briefly mentioned in each chapter for special conditions will be found under Chapter XXI.

The cause of the failure of the well-chosen remedy to give satisfactory results is often due to the neglect in considering the congenital and pathological conditions present, which require hygienic or surgical treatment before the selected remedy will remove the morbific phenomena.

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BURK G. CARLETON.

75 West 50th St., New York, October 15, 1898.

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CHAPTER XXI.

INTRODUCTION.

A careful examination and analytical study of a large number of patients suffering from the various diseases of the prostate, prostatic urethra, seminal vesicles, ampullations of Henel, the testes and spermatic cords, with the numerous associated reflex symptoms, which disappear as recovery progresses, cannot but strengthen the opinion that the great majority of the so-called functional diseases of the sexual organs of man and their accompanying neuroses will be found to be reflexes from a local disease of these parts. If these lesions are recognized and properly treated, many, if not all, of the disorders of sexual function can be relieved and a normal, moral and sexual life re-established.

The nervous reflexes and manifestations associated with sexual disorders have been considered in the past to be diseases *per se*, or arising *de novo*, it being almost the unanimous opinion that the cause in general was a diseased condition of the brain, aggravated possibly by environment, or communications received through the special senses of sight, hearing, smell and touch. The true causes *were*, however, generally allowed to pass without attention or treatment, and untold thousands of individuals with bright minds were permitted to degenerate or become total wrecks.

It must not, however, be inferred that the author is of the opinion that all mental and moral depravities or physical and financial failures are due to lesions within the sexual sphere, but he is distinctly of the opinion that a large percentage of these conditions arise primarily from morbid impulses which originate from irritation or local disease of these parts.

Comparative recent and exhaustive researches have given new light to the anatomy, physiology and diseases of the seminal vesicles and the ampullations of the vas deferens. Here-

tofore, the seminal vesicles were considered to be receptacles or storehouses for the surplus spermatozoa produced between the ejaculatory acts. While it was known that the mucous membrane lining them secreted a fluid, this was thought to be only a lubricant. They were commonly believed to be unimportant, and thus their true functions and clinical importance as presented in disease were overlooked for want of careful physiological consideration.

While agreeing mainly with Fuller in the new anatomy and physiology of the seminal vesicles and the clinical symptoms presented when they are diseased, the author does not think he has given the ampullations, the prostate and prostatic urethra proper credit in the various complex sexual acts, and in their relation to the functional derangements of the male sexual organs and the varied reflex neuroses.

The principal causes of derangement of function of the male sexual apparatus are excessive or perverted sexual acts, habitual sensual indulgence and unchaste thoughts, anterior and posterior urethral inflammations of simple or bacterial origin, with their results, and excessive or ill-advised instrumentation or treatment; tubercular involvement of the prostate or seminal vesicles, which is usually of a hæmatogenic origin, though it may be the result of extension from associated organs, and other growths of benign or malignant nature; disease or injury to the central brain mass or the nervous system; general disease, with consequent local effects and malformations.

In all animals where there is a continued abnormal irritation of the sexual organs from local congestion or disease, the habit of onanism will probably be found to exist. When the abundant sympathetic nerve supply of the prostate, seminal vesicles and ampullations, and the intimate association of the three with the rectum, anus, penis, urethra, bladder, testes, etc., together with the blood supply, and its return circulation, are considered, it is self-evident that all abnormal conditions, irritations, or disease of these parts will cause active or passive hyperæmia of the generative organs. If this hyperæmia is long continued, it causes structural changes in the epithelium and sub-epithelial tissues of the verumon-

tanum and the adjacent floor of the prostatic urethra, congestion, thickening and hyperæmia of the seminal vesicles and ampullations, with subsequent irritation of the sympathetic nerves and their chain of little brains, not only in the hollow of the sacrum, but elsewhere, which, by reflex action upon the cerebral cortex, produce sensual thoughts and acts. When this complex net-work of nerves is unbalanced by disease, is it any wonder that man, the greatest example of God's handiwork, is transformed into a degenerate? Can a man be expected to develop into a perfect being if his sympathetic nerves are constantly irritated? The physician must go deeper than the surface or superficial history in the treatment of these diseases and strike at the cause. This can only be done as he grows more thorough, scientific and practical, and in treating these cases gives more care to the histories, and more study to the reflexes presented. Until this is done the profession will be, to a large degree, accountable for the human wrecks produced by these conditions, not only those who find their way, as paretics, to the insane asylums, but the great host of unsuccessful men without aim or thought in life and deficient in moral courage, as well as those in the less marked cases, classed as eccentric.

Frequently disease of the seminal vesicles, the ampullations, the verumontanum or the prostatic urethra, presenting as symptoms nervousness, indecision, mental and physical irritability, want of firmness and self-confidence, lack of confidence in the judgment of others, suspiciousness, with moral, physical and financial failure, are treated as neurasthenias or general mental and physical decadence, the local sexual disease being neglected or treated only for the individual symptoms of impotence, priapism, satyriasis, diurnal and nocturnal pollutions, spermatorrhœa, etc., without actual knowledge of the cause of the reflexes which appear in various parts of the body.

In the author's opinion, when the conditions which cause unnatural hyperæmia of the several organs can be eradicated, diseases of the prostate, the ampullations and the seminal vesicles will be of infrequent occurrence, and consequently impotence, spermatorrhœa, etc., will be proportionately rare;

there will then be no need for lectures to young men on the dangers of masturbation and other unnatural sexual acts, for if men are physically normal, association will not succeed in debasing them.

The sexual impulse as rightly sent through the nerve centers by the special senses to the cerebral cortex and the medulla oblongata, and reflected to the genito-spinal or ganglion of Budge, opposite the fourth lumbar vertebra, and the nervi-eregenetes of Eckhard, included in the first three sacral nerves, and those of Eckhard and Goltz, midway between the brain and genital organs, with their general distribution, would be as nature intended it to be, and perverts would cease to exist. The reason why treatment of this class of ills has failed in the past has been due to the fact that the cause was not recognized.

SEXUAL DISORDERS OF MEN.

CHAPTER I.

PHYSIOLOGICAL CONSIDERATION.

The quantity of semen discharged at each complete ejaculation varies from a few drops to eight or nine drachms, the latter occurring in the celebrated case reported by Ultzmann. In young men the quantity is usually about two drachms, in the middle-aged from a drachm to a drachm and a half, and in old men a drachm or less. Its quality depends somewhat upon the age of the individual, together with his various congenital or acquired defects. The spermatic fluid is of heterogeneous character, opaline or whitish in color, viscid and stringy in consistency, alkaline in reaction, and possesses a peculiar strong odor resembling sawed bone. It is the product of the combined secretion of the testes, the vas deferens and its ampullations, the seminal vesicles, the prostate, Cowper's and the peri-urethral glands. Mieocher says, "The spermatic fluid is composed of 82 to 90 per cent. water and the remainder of serum albumin, alkali albuminate, hemialbuminose, nuclein, lecithin, guanin, hypoxanthin, protomin, fat, cholesterin, inorganic salts, phosphoric and muriatic acids in combination with inorganic salts and organic bases. Microscopically the spermatic fluid presents spermatozoa, seminal bodies, fine seminal granules, epithelial cells from the genital tract, and phosphate crystals, usually of lime or magnesia."

The spermatozoa in the semen of young and middle-aged men are large and active, but, as age advances, they become

relatively less abundant and lively, frequently disappearing entirely by the sixtieth year, though undoubtedly many men continue to be virile even to the ninetieth year or more. All things being equal, the spermatozoa are proportionately less numerous in the spermatic fluid of those who indulge in sexual intercourse at frequent intervals. The number of spermatozoa discharged at each ejaculation varies. Lode estimates the number to be about two hundred and twenty-five million, while Guelloit places the average at about four hundred and twelve million five hundred thousand. The spermatic fluid is sometimes red, dark red, brown or brownish yellow in color, caused by the admixture of blood. When it has a yellowish color it is usually from the presence of pus. The consistency of the spermatic fluid depends on the relative proportion of its seminal and prostatic component parts, the fluidity depending upon the quantity of prostatic fluid present.

Dr. Lecco (*Therapeutische Monatshefte*, October, 1897) gives the following sensitive microscopic test for spermatic fluid: A drop of semen diluted with sterile water is introduced between a microscopic slide and a cover glass, and a drop of a saturated solution of iodine in iodide of potassium allowed to flow under the latter, when a number of remarkably beautiful crystals, characteristic of spermatic fluid, will form; they are rhomboidal, often occurring in the form of crosses, and present a brownish color. This reaction was, at the same time, independently discovered by Florence. Lecco claims that even after the lapse of several years spots of spermatic fluid are easily recognized by dissolving them with a little water and testing as above.

Spermatogenesis.—The testes, by a process called spermatogenesis, produce the leaping point of life known as the spermatozoa. Taylor describes this process as follows: "Upon the endothelial basement membrane of the convoluted seminiferous tubules the nucleated parietal cells are seated, the outermost layer of which is composed of sustentacular cells, which are not concerned in producing spermatic elements. Inside and on the foregoing layer are the spermatogenetic cells, of which the outer ones are the longer or mother cells, and the inner ones the smaller or daughter cells.

From the nuclei of the latter cells the spermatoblasts are developed, and from these structures the spermatozoa are directly formed. They are closely packed together, side by side, in a finely granular semi-gelatinous substance. They gradually become elongated and bean-shaped, and finally are elaborated into fully developed spermatozoa."

The spermatozoa formed in the convoluted portion of the seminiferous tubules escape by the straight tubes, enter the vasa efferentia of the epididymis, and going through the various and tortuous canal enter the vas deferens, where by their own vibration, assisted by the action of the ciliated columnar epithelium, the rythmical action of the circular muscular fibres in the walls of the vas deferens and the pump-like action of the ampullations of Henel, they pass onward toward their destination.

A spermatozoa is composed of a head and tail, and resembles in general contour a tadpole, the upper and lower surfaces of the head being flat and of oval outline, its sides wedge or spear-shaped. The size of the head varies with the general health and the age of the subject. If the spermatozoa be the product of one advanced in years, or of one suffering from depressed vitality, from disease, etc., the head will be found thin and small, but if the product of a young and vigorous man the head may be of remarkable size. Ultzmann says, "They may be hydrocephalic and sometimes double-headed, these anomalies being found among those of normal appearance." In this fact may possibly be found the solution of twin pregnancy. The length of the tail varies; all other things being relatively equal, those produced by young men are the longest, the length diminishing as age advances or disease impairs the system. Occasionally they have two tails. If the spermatozoa are dead when discharged, the tails will be curled up; if alive, they will be outstretched or slightly curved at the end.

In the semen of young and middle-aged men there is a varying number of seminal bodies or cells, which are about four times the size of a white blood corpuscle, presenting a granular appearance, and under a high power give evidence of a fibrous structure. Frequently they contain one or many

nuclei. In men past fifty, the semen contains seminal granules, which have a yellowish cast and fatty appearance. These granules and cells are the bi-product produced in the breaking up of the protoplasm of the daughter cells during the formation of the spermatozoa.

Vesicular and Ampullar Fluid.—This is secreted by the tubular glands situated in the mucous membrane lining the seminal vesicles and the ampullations, and serves not only to separate the spermatozoa and give them proper individuality, but also, between the periods of ejaculation, to protect, preserve and nourish them. In this connection the careful and extensive investigations of Huntington must be taken into consideration. He is of the opinion that the spermatozoa never reach the seminal vesicles and are never stored or nourished in these receptacles, except possibly in disease, and that those who have found spermatozoa in the seminal vesicles, when conducting investigations along this line have been deceived by some accidental condition or want of technique. If Huntington's investigations are correct, the function of the seminal vesicles is the secretion of a special mucus, which is poured forth in abundance during sexual congress, and by its volume and force carries any and all spermatozoa, which have been expelled from the ampullations of Henel into the corresponding ejaculatory duct, with it in its onward course; however, as all investigators agree that the gross and histological structure of the walls of the seminal vesicles and the ampullations of Henel and the glandular secretions of both are identical, together with the close anatomical association of these parts, from a clinical point of view disputed points become unimportant. The vesicular and ampullar fluid is gelatinous, viscid, without special odor, of a grey or greyish blue cast, of high specific gravity, and is alkaline in reaction. Microscopically it is composed of large globular masses of mucus, of oval or irregular form, granular phosphates, leucocytes and epithelial cells, with a varying number of spermatozoa, and sometimes small masses of a yellow color, composed of mucus, phosphates and occasionally a few calcareous concretions.

Prostatic Fluid.—The prostate has the power to secrete

its special fluid in abundance, but possesses no receptacle for the storage of its surplus product. In health, the amount of secretion is very small, except during the period of functional activity, when it is poured out in large quantities. It is a thin, mucous alkaline fluid, with the fragrant odor peculiar to the seminal fluid. Microscopically, prostatic fluid contains cylindrical cells and granular phosphates, which in disease may be very abundant.

Peri-Urethral Fluid.—Littre's follicles, the crypts of Morgagni and Cowper's glands produce their contribution to the spermatic fluid, their secretion being discharged into the urethra, anterior to the triangular ligament. This fluid is particularly concerned in keeping the mucous surfaces of the urethra alkaline and neutralizing the effect of the acid urine. It also lubricates the urethra during sexual congress, facilitating the onward passage of the ejaculated seminal fluid. The secretion furnished by Cowper's glands, at the proper period in the act of copulation, mixes with the thick seminal fluid from the deeper tissues and increases its fluidity. During sexual excitement, the secretion of the glands anterior to the triangular ligament is frequently so abundant that the peri-urethral fluid appears as a drop or even a discharge at the meatus. In long-continued sexual excitement without gratification, the secretion from these glands may be quite profuse, constituting a *urethrorrhœa ex libidine*. This fluid is alkaline in reaction, clear, viscid, and looks like the albuminous portion of a fresh egg.

Erection, Ejaculation, Etc.—In the act of copulation, the physiological part taken by the male is as follows: The erection of the penis being consummated, either by an impulse generated in the cerebral cortex and conveyed to the sexual organs through the nerve trunks or by tactile influences, or a combination of both, intromission accomplished and the act commenced, the friction of the glans penis upon the vaginal walls produces certain motor and reflex impulses, which in turn cause increased functional activity of the testes, while at the same time the cremaster muscle draws them upwards and retains them at the abdominal ring. During this period testicular fluid is poured out of the coni vasculosi into the

vas deferens where the strong circular muscular coat of this canal by a rythmical action conveys it to the ampullations of Henel. The prostatic gland becomes active, and secretes an abundance of fluid, which is poured into the prostatic urethra. This fluid is prevented from flowing back into the bladder by the sphincter vesicæ, or forward into the urethra by the cut-off muscle of the membraneous urethra and the rigid penis, which is overdistended with blood.

As the act progresses the prostatic fluid, with the overflow from the seminal vesicles and ampullations, accumulates in this closed canal, and in so doing presses upon the hyperæmic erectile tissue composing the verumontanum. The fluid continues to accumulate in the prostatic urethra, until, like a time-lock, the point of irritative tolerance, or pressure upon the montanum masculinum is reached, causing a contraction of the muscular fibres of the prostate which produces an ejaculation. The muscular fibres of the prostate pass backwards and upwards and become continous with those forming the muscular coat of the seminal vesicles; the outer or connective tissue layer of the two organs pass over and join intimately with each other; therefore, a contraction of the prostate draws upon the main cavity of the seminal vesicles, and assists in their complete collapse with discharge of the retained spermatozoa and the protecting vesicular fluid into the prostatic urethra, where it mixes with that of the prostate and is propelled onward. During this period, the urethral follicles, located along the anterior urethra, secrete a small amount of clear, viscid, alkaline fluid, which lubricates the canal. When the ejaculated spermatic fluid reaches the bulbous portion of the urethra the perineal muscles, by their contraction, propel it onwards and, at the same time, press out the fluid in Cowper's glands and mix it with that from the deeper parts. When there is an obstruction in the anterior portion of the urethra, the seminal fluid may be discharged backwards into the bladder, causing a mis-emission and sterility.

When, in the consummation of an emission, the seminal vesicles contract, the central cavity only is emptied, the reason being that the little chambers or sacs situated upon

the sides of the vesicles are connected by short canals which enter the central cavity at an acute angle directed from above downward and forward and are completely closed to exit or entrance during the contraction of the vesicular walls. The opening of the ampulla of Henel, or clubbed end of the vas deferens, is also closed and its exit barred by the same act and for the same reasons. The contraction is followed by relaxation of the vesicular walls. When relaxed, the cavity produces a suction and the fluid in the distended sacculations in the vesicular walls finding less resistance soon empties itself into the main cavity, together with the fluid in the distended ampulla, the muscular coats of which now contract and press its contents into the seminal vesicles. Hence, in the second copulation, a profuse seminal discharge, containing all of the component elements and about equal to the first, is ejaculated. If a third act is at once indulged in, the discharge will be largely if not entirely composed of prostatic fluid, and the generative apparatus will be correspondingly congested and impaired.

The lower expanded end of the vas deferens, called the ampulla of Henel, does not communicate directly with the ejaculatory duct, but opens into the seminal vesicle, and, while its mucous membrane secretes a fluid that lubricates and to a certain extent preserves the spermatozoa, the principal object of the ampulla is to act as a pump to assist the spermatozoa in their transit from the testicle to the seminal vesicles. When it becomes filled its muscular walls contract and force its contents into the seminal vesicles, and forming a vacuum as its muscular walls relax, it facilitates the onward progress of the spermatozoa by its suction-like action, the communication between the clubbed end of the vas deferens and the seminal vesicles being arranged in such a manner that, while fluids can be forced into the seminal vesicles, the acute angle of the opening prevents a return flow. According to the physiology and anatomy taught by Huntington and Taylor the ampullæ open into the ejaculatory ducts. Taylor says: "With the advent of the erotic impression and consequent erection there is increased functional testicular activity, semen being discharged from the coni vasculosi of

the epididymis into the vasa deferens. By strong and rythmical muscular action it is thence carried upwards to the ampullations of Henel, causing their over-distension, and the point of tolerance being reached at the verumontanum, the ampullations contract simultaneously with the seminal vesicles and expel their contents into the ejaculatory duct where the abundant fluid is sweeping onward."

CHAPTER II.

PREVENTION OF SEXUAL DISORDERS.

This must commence at birth and continue during life, by giving proper attention, not only to the care of the morals, with protection from improper association, but also to careful, scientific and hygienic treatment of the genital organs. Too much attention cannot be paid to the removal of congenital defects, however slight, for if Nature's laws are violated her penalties will always be exacted.

It is the duty of every physician attending the birth of male children to carefully examine the genito-urinary organs, to strip back the prepuce, thoroughly expose the glans, the corona and sulcus behind it, and break up adhesions; if smegma is found behind the glans, or if at a future time evidence of its presence appears, it should be removed and measures taken to keep the parts clean. At the same time unnecessary handling must be avoided. When the prepuce is abnormally long, or becomes so after stripping it back, or the preputial opening is narrow, the child should be properly circumcised. The meatus urinarius must receive attention, and if there is evidence of over-coarctation of the mucous membrane at this point, sufficient to obstruct the urinary stream, it must be properly incised, not indiscriminately, but with care and judgment, to prevent early irritation of the parts, which leads to self-handling, orgasms, nervous derangements and, especially, early prostatic hyperæmia. Later in life if abnormal sexual impulses exist or appear, the urethra should be carefully examined for congenital or acquired stricture and other defects or disease. Congenital strictures are usually located at the meatus or in the pendulous portion of the urethra. In many cases of disorders of sexual function, even when of slight degree, relief can only be obtained after a corrective internal urethrotomy.

A normal condition cannot be established until abnormal conditions have been removed. These conditions are the essential factors in the causation of masturbation and many of the sexual disorders. When bad habits have been practiced, and, owing to proper advice or from fear of the results, have been discontinued, unless, at the same time, the irritating cause is removed, the mind will continue to dwell upon lascivious desires and keep up the same chronic congestion of the sexual organs, which, at a later period of life, will produce imperfect sexual power, etc. The promiscuous association of sexes is to be avoided. The intense strain, testicular, prostatic and vesicular of the unsatisfied desire, etc., which results from the close association frequently allowed among the young and unmarried, or practiced by the so-called sexual triflers, is often the cause of future sexual derangements, ill-health and unhappiness. This occurs while the person, in blissful ignorance, believes that no harm has been done as no commandments have been broken. The too frequent advice given to the young or older unmarried men that for their health they should practice prostitution is to be condemned; they might as well be advised to practice self-pollution or indulge constantly in sensual thoughts. The excessive cohabitation indulged in by many married and unmarried men is a very fruitful source of future weakness. Whenever the sexual act is repeated more than twice within a few hours, the strain upon the empty seminal vesicles and the prostate produces congestion if nothing more; and, if frequently repeated, may result in serious local disease. It may be added, that the perverted sexual habits of married men, who for some reason do not desire the greatest of God's gifts—the family—are still more harmful. Conjugal onanism, the use of a cundrum, or the practice advocated by the founder of the Oneida Community, all have practically the same effect. A chaste mind and body are perfectly consistent with health.

If abnormal irritations cause lust, remove the condition, but do not pander to it. If there is a urethritis, do not dismiss the patient until the urine is free from epithelial and other shreds. When stricture, congenital or acquired, is present, give it the proper treatment, and if there is stone in the

bladder remove it. If the saddle on the wheel they ride be improperly constructed or adjusted, and it cannot be changed, have them discontinue riding. If the urine is over-acid, alkaline or irritating, give it the proper attention, etc.

CHAPTER III.

ACUTE SEMINAL VESICULITIS AND AMPULLITIS.

Etiology.—The most common predisposing cause is acute urethritis, which may be either of the bacterial, toxic, traumatic, chemical or specific variety. It is most frequently produced by the extension backwards of an acute or, possibly, a chronic gonorrhœal urethritis. In acute urethritis the continued ingestion of fluids containing alcohol, the indulgence in excessive muscular exercise, bicycling, long railroad, carriage or horseback rides, standing, walking, and, especially, the various forms of sexual acts—coitus, masturbation, or sexual excitement of any kind—may precipitate the advent of this disease. In those predisposed, instrumentation or local treatment of the prostatic urethra may occasion it, even when conducted with the utmost care and for justifiable reasons. Rectal examination or massage of the seminal vesicles when diseased is not free from danger, and surgical operations or traumatism in their vicinity may also create it. The acute tubercular variety may be caused by hæmatogenic infection, or by extension from neighboring organs, etc.

Pathology.—One or both vesicles may be simultaneously involved. This disease is dependent upon germ invasion, either by extension from neighboring parts or from systemic involvement. The most extensive pathological changes are found in those cases originating from an acute or latent gonorrhœa, the tubercular being less severe and usually moderate in intensity. The walls of the seminal vesicles present the usual evidences of inflammation, though, in many cases, the exudation extends into the surrounding peri-vesicular tissue. It may even involve the neighboring peritoneum, producing

a localized pelvic or general peritonitis. The sac is often distended and filled with purulent matter, which may possibly contain gonococci or tubercular bacilli. The mucous membrane lining the vesicle presents a simple congested appearance, or, if the purulent matter in the sac is considerable in amount, it may be inflamed and ulcerated. The sac may rupture and discharge into the bladder, the rectum, or both, producing a vesico-rectal fistula, or into the peritoneum, causing a general or localized purulent peritonitis. When the prostate is involved, it is extremely difficult sometimes to decide whether the original lesion commenced in the seminal vesicles, ampullæ or the prostate, or whether they were infected simultaneously. In abscesses in the male pelvis, with pyæmia and death, it may be impossible to differentiate those originating in these organs from those arising in the peri-vesicular tissues.

Clinical History.—There are all grades of severity, from one so transitory and unimportant that it passes unnoticed to one in which the symptoms are distressing and serious. The disease may develop gradually, but often, after some of its well-known exciting causes, the advent is abrupt. In the gonorrhœal variety it is generally associated with an epididymitis, an epididymo-orchitis, a deferentitis or an acute prostatitis. Pain referred to the sacrum or supra-pubic region of the affected side is common; it may be burning, lancinating or excruciating in character and extend upward and backward to the kidney, down the spermatic cord to the testicle, or down the thighs into the perineum and rectum. During the paroxysm, the testicles are frequently drawn up by contraction of the cremaster muscles. The corresponding supra-pubic region is tender to manipulation, and palpation may cause severe pain; sometimes when the inflammation is intense and the exudation extensive, the inflamed mass can be distinguished by deep palpation over this region. The inflamed vesicle or ampulla can usually be distinguished by a rectal examination, the diseased tissues being frequently extremely sensitive to the touch. The amount of tumefaction varies with the degree of inflammation. If the disease is confined to one side, the seminal vesicle or ampulla may feel like a small sausage extending up and beyond the reach of the

finger; only about one-half or two-thirds of the seminal vesicle, however, can be digitally reached and examined through the rectum. When the peri-vesicular tissue is involved the cysto-rectal space will be thickened, tumefied and very sensitive. The swollen mass may feel doughy, or even give some degree of fluctuation. If pressure is applied by the tip of the finger some of the fluid contents will be discharged into the urethra; it may be quite profuse, a drachm and sometimes even more appearing at the meatus. When the pressure is removed the tumor will not fully round out. The prostate is usually swollen and sensitive, especially over the median line along the situation of the inflamed ejaculatory duct. The pain and uneasiness in the seminal vesicle or ampulla is increased by over-distension of the rectum, by fecal matter or gas, and their removal is followed by relief. In many cases the inflamed vesicle or ampulla and surrounding tissues press upon the rectum producing a continuous desire to evacuate the bowels. If this desire for stool is encouraged, the straining, etc., will greatly augment the sufferings of the patient.

In the early stage, persistent erections with noctural emissions are frequent, the ejaculated fluid being usually mixed with pus; occasionally, with a little blood. As the inflammatory condition becomes more pronounced, the carnal desire become less distressing, but emissions are usually accompanied by pain, which often continues for hours. Micturition is increased in frequency, and is accompanied by pain referred to the neck of the bladder or the fossa navicularis. It may extend along the whole length of the urethra. The urine is occasionally retained, or discharged in a small stream with great difficulty, owing to a prostatic or muscular spasm, or an associated acute prostatitis. The urine at first is clear and free from shreds, pus, etc. When, however, the acute seminal vesiculitis or ampullitis develops as a sequela of an acute urethritis, the urethral discharge, as in epididymitis, generally ceases; but, as the pain, fever, etc., disappear and the organ becomes able to discharge itself, the urine again becomes cloudy and the urethral discharge returns. The degree of fever, with its thirst, general erethism, restlessness, head-

ache, vomiting, etc., varies with the intensity of the local disease. In one of the author's cases the temperature for two days remained at 105° Fahr. This, however, is uncommon, the temperature usually ranging from 100° to 103° Fahr. The fever, pain, etc., ordinarily subside by the fourteenth day. In the acute tubercular variety the range of temperature is lower and the pathological lesion is generally bilateral.

Diagnosis.—In the more severe cases the patient, when in bed, assumes a characteristic position, reclining on the back with the thigh of the corresponding side drawn up to relieve the pressure of the abdominal muscles. The disease must be differentiated from acute posterior urethritis, acute prostatitis, urethro-cystitis, cystitis, pyelitis, renal colic, acute appendicitis, acute proctitis, etc. Acute seminal vesiculitis may be associated with these conditions, as well as epididymitis and deferentitis. As an associated lesion, it is frequently overlooked, but if a rectal examination is made, the condition of the seminal vesicles and ampullations will give physical evidence of their association in the diseased condition.

Prognosis.—When seen early, even in the most severe form, a favorable prognosis can be given, if the patient will go to bed and avoid over-exertion. The disease, with its fever and pain, from over-distension of the vesicles, may advance for two weeks before resolution commences; the fever and pain will then cease and the seminal vesicles will discharge their surplus fluid, and any antecedent urethral discharge will be re-established.

Treatment—Rest in bed is of the utmost importance, and if neglected the course of the disease will be proportionately more painful and protracted. During the first two weeks of the severe cases it is especially important that the patient should remain in bed, keeping on the back with the head low, and, in some cases, it is even well to have the extremities slightly elevated.

In all cases, whether the testicles are involved in the diseased condition or not, the scrotum must be properly suspended to relieve tension on the vas deferens. This may be accomplished by a broad piece of surgeon's adhesive plaster

six inches wide and of sufficient length to reach from thigh to thigh and fit in quite closely against the perineum, its upper surface being covered with rubber tissue, thus forming a table of support for the scrotum, or, still better, by Fuller's method, described in the "Journal of Cutaneous and Genito-Urinary Diseases," February, 1895. This is accomplished by means of a band of muslin adjusted with safety pins as follows: "A broad waist-band is first firmly applied, then a broad sling is passed under the perineum and scrotum, to hold it up in the supra-pubic position, allowing the penis to lie naturally on the hypogastric region. To prevent the scrotum slipping back, strips of muslin are attached to the middle of the sling posteriorly and carried backwards and pinned or tied to the waistband, and, to guard against the testicles slipping over the rim of the loop, a strip of muslin is pinned across the front," or the testicle may be supported by a pillow or suitable roll of cotton pressed up well against the perineum between the thighs. The ideal support for the testes, which has been successfully used for many months in the genito-urinary ward at the Metropolitan Hospital, is a semi-natural suspensory and is applied as follows: The testes are pressed up into and against the external abdominal ring, the scrotal tissues well extended and the testes retained in this position by a few turns around the scrotum of an elastic adhesive bandage, one and a half inches wide and eight inches long, this relieving all possible tension on the vas deferens, and at the same time allowing the lower part of the scrotum to be exposed for observation in case the circulation is interfered with.

Poultices of flax seed and tobacco, 16 to 1, or a number of layers of cotton-wool, moistened with a hot boric acid solution, or one of calendula or hamamelis, a tablespoonful of the tincture to the pint of hot water, applied over the correspond ing side of the hypogastic and iliac regions covered with flannel and oil silk, and changed as often as required, give great comfort and relief. This variety of local treatment must, however, be discontinued as soon as the pain stops or the discharge appears, with other signs of the subsiding of the inflammation. Sometimes cold applications act well. The bowels must be moved daily, a mild aperient being at

times required, but a violent one must never be administered. Rectal enemas of hot water, containing a teaspoonful of glycerine to the pint, or glycerine suppositories may act satisfactorily. When administering an enema, a long, soft, rectal tube should be used to carry the enema well up into the sigmoid flexure. The intense pain and loss of sleep may necessitate the use of morphia and atropine suppositories and possibly hypodermics of morphia.

The food must be light, milk being the classical diet, to which may be added the usual light nourishment allowed in other inflammatory conditions. Pure waters of all kinds, in moderation, will be of benefit. In some of the more severe cases it is advisable to incise or resect the diseased mass and drain the purulent sac through the perineum, or to aspirate and inject the cavity with a 10 per cent. emulsion of iodoform.

The remedies most frequently indicated during the acute period are Aconite nap., Aloes soc., Arnica mont., Belladonna, Bryonia alb., Cubeba, Ferrum phos., Gelsemium, Kali brom., Pulsatilla nig., Veratrum vir., etc., and, during the convalescent period, Hekla lava, Hepar sulph. c., Lithium, Mercurius, Phytolacca dec., Selenium, Sulphur, etc.

CHAPTER IV.

CHRONIC SEMINAL VESICULITIS AND AMPULLITIS.

Etiology.—Perverted sexual habits are undoubtedly the most frequent causes of this disease, masturbation taking the first rank, especially when practiced to excess by the growing boy. It is often occasioned by the unnatural sexual acts indulged in by libertines to produce great and prolonged gratification, or to stimulate an orgasm when erections are imperfect or impossible, as well as by excessive intercourse, or cohabitation, when the wife considers it a nuisance, to be allowed only at stated intervals, without a semblance of reciprocity and sometimes with the coldness of a stone. The practice of conjugal onanism, and, to prevent conception or to conciliate the wife, the use of a condrum has a potent influence in the production of this disease. It is prevalent in the unmarried, who, from fear of contagion, the consequences, lack of opportunity or for moral reasons, while living a life of continence, encourage a state of constant irritation and congestion in their sexual organs. The same conditions are often operative in recent widowerhood, and in those particularly who play the part of triflers, taking great liberties with members of the female sex, but never consummating the act.

In fact anything, be it action or thought, which causes intense strain or hyperæmia of the sexual organs, if protracted and repeated at frequent intervals, may be considered a cause of this disease. Improperly treated acute seminal vesiculitis frequently terminates in the chronic variety. Often it is caused by the extension backwards of an old urethritis which does not reveal itself until years after the original invasion, having lain dormant in the prostatic urethra or elsewhere, then, after some deep urethral or bladder douche, instrumentation,

excessive sexual act, etc., it becomes aroused, and, by continuity of tissue, travels up the ejaculatory duct to the seminal vesicles or ampullations. Congenital or acquired stricture of the urethra may cause chronic congestion or posterior urethritis, which by extension may also involve the seminal vesicles and ampullations. The reflex irritation excited by a long or contracted foreskin, hæmorrhoids, fissures, strictures of the rectum, etc., occasionally cause seminal vesiculitis and ampullitis. Local conditions are not the only cause of this disease, for anything which lowers the general tone of the system may, by weakening the contractile power of these organs, interfere with their complete collapse and allow them to become over-distended and diseased. When the central nerve or the trunks connected with these parts are in any way injured or diseased, a seminal vesiculitis or ampullitis may result.

Pathology.—The walls of the seminal vesicles and ampullæ may be greatly thickened and infiltrated, the inflammatory deposit occurring principally in the sub-mucous cellular tissue, and, to some extent, between the fibres of the muscular coats. In well-marked cases there is considerable infiltration and swelling of the peri-vascular tissue in the vesico-rectal space. The muscular layer may become hypertrophied. In these conditions the cavity is usually contracted, though not infrequently it is dilated. In cases in which the vesicular walls are greatly thinned the cavity is proportionately dilated. In either case the inflammatory changes in the walls greatly interfere with the normal elasticity and function of the organs.

The inflammatory changes in the mucous membrane are similar to those occurring in inflammations of similar mucous surfaces, and the amount of purulent matter present depends upon the severity of the inflammation. The blood vessels are thinned and tortuous, and upon slight provocation rupture, imparting a red or bloody color to the seminal fluid. When blood from any reason has remained in the cavity of the vesicles for some time, the contained fluid may become quite black. If pus predominates the fluid will be of a yellow or yellowish green color, or it may assume a blue shade, due to the presence of indigo. The condition of the mucous mem-

brane also influences the character of the vesicular fluid. When the seminal vesicles and ampullæ are congested, the vesicular fluid becomes thick, gelatinous and more difficult to expel through the ejaculatory ducts. When the fluid remains alkaline it will contain more or less symplexions, *i. e.*, small highly refractive amylaceous particles, somewhat resembling starch granules. These are never present in the semen of boys or in fresh, healthy specimens, nor when the pathological process is well advanced. Symplexions are frequently found in the grey, sticky mucous discharge from the urethra, so common in this disease; they are also found mixed with shreds and other material in the urine, and cause the thickening of the vesicular fluid and over-distension of the seminal sacs in the lighter grades of inflammation. Symplexions are frequently observed in the small globular masses and in the stringy shreds one-fourth to one inch in length, about the size of the ejaculatory ducts, and slightly protected by a mucous coating, which are voided in the urine by the patient. The vesicular fluid may contain bacilli coli communi, etc., but the alkaline condition of this fluid inhibits the growth and causes the death of the gonococci, which may have been the exciting cause. Gonococci are, however, frequently present in the urine, being brought down from coexisting disease in the prostatic urethra.

Occasionally the inflammatory exudation breaks down and small abscess cavities form, which may remain isolated, be absorbed or by burrowing and amalgamating form large abscesses and open into the neighboring organs causing fistulæ, etc.

Clinical History.—The disease may commence insiduously or it may be the sequela of an acute inflammation. When an acute vesiculitis or ampullitis has existed for eight weeks it may be considered chronic, though the clinical aspect of the case will vary greatly with the severity and duration of the disease. The inflammatory symptoms, which are prominent in acute seminal vesiculitis and ampullitis, are rarely present in the chronic conditions, fever being uncommon unless excited by bacterial infection from accidental or surgical traumatism. Pain of moderate intensity is not uncom-

mon; it may be located in the supra-pubic region of the affected side, in the bladder, at the root of the penis in, the glans, the scrotum, perineum, or sacrum. It is aggravated by sexual congress, or excitement without gratification. Sometimes it is agonizing and may continue for hours or days. This is called spermatic colic. In one of the author's cases, the pain after coitus was so intense that the patient was obliged to walk the floor for relief, with a pale face covered with cold sweat, and, on a few occasions, the agony was so great that it caused fainting. The perineal region is often so sensitive to touch that soft seats must be avoided and hard ones selected so the tuberischii will take the weight of the body, or a ring air cushion may be necessary for comfort.

Micturition is usually increased in frequency, especially during the day; often it is painful and burning in character. This pain may extend along the whole length of the canal; it may be referred to the fossa navicularis or the neck of the bladder; sometimes it is most severe at the end of the act. It is generally increased after excessive coitus or sexual excitement. In aggravated cases the urethral pain may even cause urinary incontinence, and may, by reflex spasm, produce retention. The urine is frequently phosphatic in character and often contains quantities of oxalate of lime, derived from the associated chronic prostatitis, which may irritate and congest the urethra. The urine voided may from the admixture of seminal fluid be albuminous; when present it is most marked in the morning. Otherwise, the urine may be healthy and free from all evidences of Bright's disease.

In disease of the seminal vesicles, the bacilli coli communi sometimes appear in the urine, having entered the vesicle, either through lymphatic connection, or directly through the tissues, discharging themselves through the ejaculatory duct into the prostatic urethra, directly into the bladder through its walls, or by means of an undiscovered sinus. In seminal vesiculitis or ampullitis, if the urine is examined when voided, it will contain numerous long, viscid strings composed of symplexions, seminal fluid, spermatazoa, epithelia, etc., or rounded masses of the same microscopic nature. In a certain proportion of these cases

the meatus urinarius is bathed with a sticky discharge, at times causing agglutination, or it may be quite profuse, and especially noticeable after a constipated or diarrhœic stool. Microscopically, this fluid is composed of symplexions, dead and living spermatazoa, leucocytes, etc. Before careful minute examinations were made, many attributed this discharge to an old gonorrhœa, the improper use of sounds, a urethral douche, etc. A careful investigation often reveals a clinical history of vesiculitis and ampullitis which have existed for a long period previous to the gonorrhœa or instrumentation. In the majority of cases of chronic seminal vesiculitis or ampullitis, when a urethral discharge forms a part of the history, the patients are virgin to gonorrhœa, but a gonorrhœal infection may rekindle and aggravate an old vesiculitis or ampullitis. This urethral discharge is occasioned not only by the vesiculitis and ampullitis producing overdistention of the cavities by the products of catarrhal inflammation and consequent incontinence, but also by the patulous and relaxed condition of the ejaculatory ducts, the result of associated inflammatory changes in their walls. These pathological conditions explain the reason of the discharge as it appears continuously, increased at stool, when urinating or during muscular efforts. This urethral discharge is also increased by sexual excitement, by the presence of a sensuous women, or of certain women; sometimes by a woman's photograph.

In the early period of this disease there is often great and prolonged sexual excitement, with carnal desire and continued priapism, gratification giving no relief; coitus may be very unsatisfactory. In others, the lascivious desire is so great and annoying that the inclination to self-abuse cannot be withstood, while in the less severe forms, the desire and erections amount merely to a little increased erethism.

Chronic seminal vesiculitis and ampullitis develop slowly, consequently the early manifestations in those who are married are often overlooked until a rapidly diminishing power of erection with loss of sexual desire is noticed and that coitus affords little or no gratification; emissions are incomplete and occur too early, complete impotence finally

resulting. Pathological nocturnal emissions are frequent, *i. e.*, two or three every night; they may happen only in cycles, with or without lascivious dreams, finally occurring without cognizance. In the more chronic and atonic cases, diurnal emissions exist and may be produced by any lascivious sight or thought, or may even occur without any direction of the mind to the subject. In the early stage the too frequent advice to gratify the sexual erethism has caused untold harm. Impotence often becomes a source of great anxiety, especially when the former condition is compared with the present, with the stated power of friends or the criticism of some female leads the patient to believe that he has lost his manly powers. Perverted sensations are frequently noticed, such as coldness of the glans penis. In one of the author's cases this symptom was so troublesome, and while the coldness was not in any way apparent to the author, the patient was obliged to cover the glans with a layer of cotton, or the cold, dead feeling of the parts would interfere with his work. A shriveled feeling of the penis is often complained of. Some patients have a sensation as though the scrotum was abnormally contracted; others complain that the parts are uncomfortably relaxed. These sensations may alternate in the same patient, or there may be a loss of feeling in the testes, which, in time, engenders the belief that the organs are undergoing atrophy.

Localized points of numbness and formication in the limbs and various parts of the body are frequent, inducing in the patients the belief that they are soon to be afflicted with paralysis or some other dreaded disease. The various reflexes may assume all the symptoms of hysteria or neurasthenia, but it must by no means be understood that all the symptoms of hysteria or neurasthenia in the male are dependent upon diseases of the seminal vesicles or the ampullations of Henel.

The mental symptoms are generally very pronounced, their severity often bearing no relation to the magnitude of the local disease. Melancholic conditions predominate; the patients lose courage and aggressiveness; all mental labor seems difficult; there is a tendency to delegate

their work to others, with underestimation of their own ability; aversion to the society of their fellows; mental apathy; mental efforts tire; irritability, and a tendency to become quarrelsome or suspicious. Memory becomes somewhat impaired, with forgetfulness, and a feeling that they "have lost their grip," or a fear that they are going insane. Physical and mental unrest are characteristic, while the desire for change of location, change in business principles, indecision, with irritable moods are ever present. Sleep is frequently disturbed, and insomnia may be present. Sharp pains in the forehead, dull pains in the occiput, as though the head was held in a vise, or a general dull headache are common. Fuller records a case each of tinnitus aurium and one of seeming intestinal colic, and the author a case of successive bilious attacks, relieved and not returning after the cure of the disease of the seminal vesicles and the ampullations of Henel. All reflexes are aggravated by sexual excesses or excitement.

Examination per rectum is very important and much information is obtained by the properly educated touch. The condition of the prostate is first investigated, the tip of the finger being carried along the median sulcus separating the two lobes of the prostate, to its posterior border; if the bladder is only moderately distended with urine and the tip of the finger is carried backward, the tissues forming the bladder walls should feel soft and yielding. If it is carried laterally and a little backwards, they will be more resistent, firmer, and the indistinct seminal vesicle, somewhat pear-like in shape, can be located and the lower two-thirds mapped out. When the pathological lesion is confined to the seminal vesicles and ampullations of Henel these organs can usually be recognized by their rigid and well-defined outlines. When the seminal vesicles or ampullæ are diseased they are generally enlarged, sometimes to a considerable degree, owing to overdistension of their sacs with fluid, and when pressed upon convey a doughy feeling to the examining finger or they will fluctuate. If the pressure is continued and the sac somewhat massaged the swollen mass will be distinctly reduced in size, and at the same time a vesicular fluid, varying

in amount from a few drops to two or three drachms, will flow into the urethra. When the enlargement is due to an inflammatory infiltration of the vesicular walls, the diseased sac may even be contracted, and in these cases the amount of fluid pressed out may be hardly demonstrable. If the circumscribed swelling is due to a peri-vesicular infiltration it may have something of an irregular or nodular outline. The peri-vesicular involvement may extend and fill the space between the vesicles in the centre downwards to the prostate, and laterally to the walls of the pelvis, giving the entire space or roof a firm, hard and unyielding feel, similar to the vault of the pelvis in pelvic peritonitis. The infiltration is generally more abundant around the seminal vesicles and ampullæ. When a vesicle or ampulla is invaded by a chronic inflammation it ordinarily becomes painful and sensitive to the touch; sometimes the pain produced is so agonizing as to cause perspiration to appear on the face, with faintness. The pain is neuralgic in character and diminishes with each examination or treatment. As a rule, the more extensive the peri-vesicular and ampullar infiltration, the less sensitive the parts, the point of greatest sensitiveness being noticed while pressing over the diseased organ. As the condition improves the pain and sensitiveness on manipulation will disappear. If the seminal vesiculitis or ampullitis is the result of the lowering of the body tone, the finger will discover the adjacent parts to be relaxed, the prostate movable and the swollen seminal vesicle or ampulla easily distinguished and the contents evacuated. The pain and tenderness which may exist will be slight, and in proportion to the acute character of the inflammation, or when an acute attack is engrafted upon a chronic condition, to that degree only will the muscular tissues resent examination.

Diagnosis.—This must be verified by rectal examination. Under no circumstances is it safe or advisable to make a diagnosis of seminal vesiculitis or ampullitis without proper local physical examination and exclusion of disease elsewhere. In all cases of mental decadence the seminal vesicles and ampullations of Henel should be interrogated, and, frequently, when local disease is found and removed, the mental powers will

return and the nervous manifestations will disappear. Cause and effect must, however, receive proper consideration, as in the idiot, or the sexual pervert, where the disease originates in the nerve centres, the genitalia being free from lesion. If, in the history of a suspected case, the numerous reflex pains and sensations suggest disease of the seminal vesicles or ampullæ, examination of the parts may reveal the cause. At the same time, while many hysterical conditions are caused by chronic seminal vesiculitis and ampullitis, it must be remembered that in a large proportion of the cases of male hysteria and neurasthenia the seminal vesicles are in a normal state. In these cases special care must be observed in the rectal examinations, or hyperæsthesia may be mistaken for local disease. In hysteria the entire space reached by the tip of the finger is equally sensitive, and if massage treatment be instituted the patient will grow worse.

Nocturnal emissions occurring every one or two weeks or even in cycles of one, two or three successive nights, followed by a considerable period of rest, without unpleasant symptoms, are entirely within the bounds of health. They must be distinguished from those of a pathological character, which are always followed by lassitude, etc. In impotence of hysterical nature it must also be remembered that there is always a desire for female society, differing from the pathological condition where there is not only loss of sexual power but aversion to the society of the other sex. In the impotence of seminal vesiculitis the power of erection is gradually lost in contra-distinction to functional impotence, where, as the result of fear, contagion, unpleasant impressions of the partner, fear of incapacity to perform the act, etc., intercourse is impossible or the emission premature, while in the morning on awakening and at other times the erection is normal.

In all cases of chronic seminal vesiculitis or ampullitis, with an accompanying urethral discharge, or where pus or shreds are found in the urine, the entire genital tract must receive careful examination, and the diagnosis made by ocular examination with the urethroscope, the cystoscope or with the bulbous bougies, by digital examination and with microscopical examination of the fluid. If symplexions, leucocytes

and dead spermatozoa are found the diagnosis of vesiculitis or ampullitis is verified. Many cases of chronic urethral discharge are entirely dependent on a chronic seminal vesiculitis or ampullitis, and cannot be cured until the proper treatment is instituted. At the same time it must not be inferred that all persistent urethral discharges are due to these lesions.

A burning pain referred to the neck of the bladder or fossa navicularis in a urethra in which the bulbous bougie and the urethroscope reveal no evidence of local disease should always excite suspicion, epecially when a little glairy mucus has been noticed at the meatus mornings, after sexual excitement, after a constipated or diarrhœic stool, or when shreds are present in the urine of those free from stricture, chronic urethritis, etc.

Prognosis.—This depends upon the degree of inflammatory involvment, the duration of the disease, the age of the patient and the concomitant conditions When the inflammatory induration is moderate in degree, simply interfering with the mechanism of ejaculation, it can be quickly cured, but when the walls of the vesicles and ampullæ are infiltrated and thickened a longer treatment will be required. If the perivesicular and ampullar tissue is indurated and thickened, the case will be correspondingly protracted. The average duration of treatment required is from two to ten months, though occasionally one or two years or even a longer period may be required. While some apparently recover without treatment, the rule is for the disease to grow gradually or rapidly worse, with an accompanying loss of sexual vigor and the development of mental symptoms, which turn business successes into failures and a man of good disposition and impulses into an irritable, morose, suspicious, irascible, shrinking being, and often into a condition suitable for the madhouse. Uncomplicated cases occurring in men of thirty or forty usually recover rapidly; between forty and fifty they are more tedious and are liable to prostatic complications; after fifty complications are common, and the disease is frequently protracted and often incurable. The better the general physical condition of the patient the more favorable the prognosis.

Treatment.—This must be directed towards restoring the

power of ejaculation, through re-establishment of the normal contractile expulsive power of the seminal vesicles and ampullæ with the removal of inflammatory material deposited in them and in the neighboring tissues. In many cases massage, as originated and applied by Fuller, is all sufficient. He describes his process of stripping the seminal vesicles, as follows: "The patient should present himself with a full bladder, and, while standing with his knees straight, bend the body forward at right angles. Then the operator should introduce the forefinger of one hand well into the rectum, the fist of the other hand exercising firm counter-pressure over the pubes. By these means the end of the forefinger will in all ordinary cases reach well beyond the posterior margin of the prostate. The bodies of the vesicles can be thus detected, one on each side beyond the posterior prostatic border. Only the lower half of the body of the vesicle can be felt ordinarily by the finger, the rest being beyond reach. After the forefinger has been so introduced, firm pressure should be made by its tip on the body of the vesicle to be treated as far back as it is possible to reach. Then the finger-tip, the pressure being maintained, should be firmly and slowly drawn forward along the line of the vesicle. The manœuvre is aided by the counter-pressure over the pubes with the free hand. This process may be repeated several times in connection with each vesicle. In this manner some of the vesicular contents, provided the sac be diseased and distended, can be pressed out along its ejaculatory duct and into the prostatic sinus. As has been stated, the stripping should be done on a full bladder, and after the manipulation the urine should be voided in order that the surgeon may see how much has been expressed. This treatment should be repeated not oftener than once in four days, and in most cases under active treatment as often as once a week. If it is done too frequently, or too severe pressure with the forefinger is employed, acute symptoms may be stirred up which may leave the patient worse off apparently than before treatment was commenced, besides, at times, causing an acute epididymitis."

The finger should always be protected by a thin, well-fitting rubber tip, which not only shields the operator, but pre-

cludes irritation of the mucous membrane of the rectum by the finger nail. Felki and Swinburne have invented an instrument for massage of the seminal vesicles and prostate, which has acted very satisfactorily in the cases reported by them.

There are some precautions which must be observed in this method of local treatment, or unsatisfactory results will follow, *i. e.*, acute seminal vesiculitis, ampullitis, epididymitis, deferentitis, etc. If evidence of acute inflammation exists, massage must not be performed as it may increase the inflammatory condition. In the first treatment it is advisable to apply moderate pressure with the finger tips and only strip each vesicle and ampulla two or three times, the duration and vigor of the massage being gradually increased. Should manipulation increase the tenderness, this form of treatment must be discontinued for a few weeks and resumed only after the acute symptoms have subsided. The urine should always be voided after the massage, and the dislodged seminal fluid examined, as the progress and success of the treatment may be determined by the quantity and quality of the deposit in the bottom of the receiving glass. If the urine voided after massage is turbid from the presence of pus, this treatment must be discontinued until the acute symptoms have subsided.

The author has had excellent results in this class of cases by alternating the above treatment every fifth day with a rectal psychorphore, using ice-water or alternately hot and cold water. As the psychorphore in general use is very liable to become obstructed, causing the physician and patient much annoyance, the author has constructed one composed of two parts, fitted together by a screw connection. It also has the entrance and exit attachments placed at right angles, preventing the tube connecting it with the ice-water bag and the one going to the deposit receptacle from becoming twisted; it also allows the psychorphore to be placed well up against the anus and in close contact with the prostate and seminal vesicles. It is four inches long, somewhat longer than the ordinary instrument. If the bladder is involved to any extent in the general disease, intra-vesical douches will be of

great benefit. They may be administered with Valentine's modification of Janet's hydrostatic method, or more scientifically and with less danger of overdistention of the bladder, by means of a No. 12 F. sterile catheter introduced into the bladder, and, after the urine is evacuated, four to six ounces of the selected antiseptic fluid injected with a Janet's silver antiseptic syringe. As soon as the patient notices a full feeling in the bladder the catheter should be removed and the fluid expelled per urethra. Sometimes it is advisable to occasionally interrupt the exit of this fluid by pressing upon the urethral canal, to more completely distend the urethra. The solutions which act most satisfactorily are Formalin 1 to 1,000 to 1 to 10,000, Bichloride of Mercury 1 to 12,000 to 1 to 20,000, Nitrate of Silver 1 to 2,000 to 1 to 8,000, Permanganate of Potash 1 to 2,000 to 1 to 10,000, or Ultzman's solution. These bladder irrigations, when required, should be given after manipulation of the seminal vesicles and ampullæ, never before. In many cases of chronic seminal vesiculitis and ampullitis there is a complicating anterior or posterior urethritis which requires deep urethral douches of Nitrate of Silver 1 to 500 to 1 to 1,000, Formalin 1 to 500, Thalline Sulph. 1 to 40 to 1 to 100, Permanganate of Potash 1 to 500 to 1 to 1,000, or a 5 per cent. iodoform and vaseline emulsion, applied with the Harrison suppository apparatus. Other cases will require an occasional urethral massage by the careful introduction of the full-sized steel sound. When the steel sound is used, it must not be allowed to remain in the canal as advised for urethral dilatation; if this suggestion is disregarded unpleasant symptoms frequently develop.

Electricity in many of the more chronic cases is of great benefit. Faradism can be employed through the rectum, using the ordinary rectal electrode, the other pole being applied to the perineum or sacral region, with a current comfortable to the patient, for from five to ten minutes, every second or third day. Galvanism is often more satisfactory, King's rectal electrode being used. The hard rubber sheath of the instrument prevents injury to the mucous membrane, while numerous slits open into and upon the small metallic tip within the cavity, which also has a connection for the attach-

ment of a water supply. After the electrode has been introduced into the rectum and the negative pole connected with it, and the positive applied over the sacral or lumbar region, a normal salt solution is forced through the hollow electrode, sufficient in amount to slightly distend the rectum. As soon as a fullness is felt by the patient the water supply is stopped and a current of from two to ten milliampéres may be turned on for two or three minutes. The great advantage of this instrument is that the current is equally applied to all the tissues located adjacent to the rectum. The faradic current can also be administered in this manner with advantage.

Light outdoor exercise is advisable. The diet must be nourishing and easy of digestion. Sexual congress, as a rule, should be prohibited during the first months of the treatment, and in many cases until a cure is accomplished; in the married, however, intercourse is sometimes beneficial. This question can be best determined by a digital examination a few hours after coitius; if the seminal vesicles and ampullæ are firm and but little vesicular fluid is removed by the act, it has not been harmful, and may be repeated once a week; but if they are swollen, tender to touch and considerable fluid can be expelled by stripping it has been harmful and must not be repeated until the parts are in a better condition. The testicles must in all cases be supported with a suspensory bandage, to prevent dragging or sudden pulling on the vas deferens.

Remedies.—Agaricus, Agnus castus, Alumina, Argentum nitr., Aurum met., Baryta carb., Caladium, Calcarea acet., Calcarea carb, Cannabis sat., Clematis, Conium mac., Cubeba, Dioscorea vil., Eryngium, Gelsemium, Graphites, Hamamelis, Hepar sulph., Hydrocotyle, Ignatia, Iodium, Kali brom., Kali carb., Lachesis, Ledum pelt., Lithium, Lycopodium, Magnesia mur., Magnesia carb., Mercurius, Mezereum, Muriatic acid, Natrum mur., Natrum carb., Nitric acid, Nupar lut., Nux vom., Petroleum, Platina, Plumbum, Pulsatilla, Phosphorus, Phosphoric acid, Phytolacca dec., Sabadilla, Selenium, Sepia, Silicea, Stannum, Sulphur, Tribulus ter., Ustilago mad. and Zincum met.

CHAPTER V.

TUBERCULAR SEMINAL VESICULITIS AND AMPULLITIS.

Etiology.—There is but one cause, the presence of the tubercular bacillus and its ptomaines in the diseased organs, which may be due to hæmatogenic origin or to extension of tubercular disease from neighboring tissues.

Clinical History.—The disease usually develops insidiously, for a long time presenting no symptoms which direct attention to the part. There may be some little disturbance of the sexual power. If the urine be examined, shreds from the prostatic urethra and ejaculatory ducts will be found, together with a few pus corpuscles or leucocytes. Possibly a little pasty discharge may have been noticed at the meatus urinarius. As the disease becomes more chronic, all the symptoms, general and reflex, of chronic seminal vesiculitis appear. Anything, however, which improves the general tone of the system will reduce the manifestations of the disease, so that, when the general health is good, all subjective symptoms may for the time being entirely disappear.

Diagnosis.—If the general family history is consulted, with a thorough physical examination of the whole body, much information may be gained which will assist in a correct diagnosis. Digital examination per rectum in the early stage of this disease will reveal nodulations of the seminal vesicles and ampullations, but in the more chronic condition the first rectal examination gives no positive diagnostic information, except the fact that in the tubercular variety the parts are more sensitive to digital manipulation than in the other forms of this disease. If repeated mechanical stripping of the parts is considered proper and is applied, each successive massage will become more painful, differing from the results in simple chronic seminal vesiculitis,

giving positive notice that the manipulation is injurious. Therefore, in all suspicious cases, the first massage should be carefully performed, in order to avoid unpleasant results. The seminal fluid removed should always be examined microscopically for tubercular bacilli. The testes and appendages should also receive a careful examination, as they frequently give confirmatory diagnostic evidence.

Prognosis.—Recovery must not be expected, but proper treatment may afford great relief.

Treatment.—In addition to the general remedies indicated for chronic seminal vesiculitis and ampullitis, Bacillinum 200, a dose every seventh day, should be administered. The diet must be carefully regulated to give the greatest nourishment without overtaxing the digestive organs. Hemaboloids, a tablespoonful after eating, has proved very satisfactory, increasing the quantity of red corpuscles and in building up the system. Cod liver oil must not be forgotten, Hagies's cordial of cod liver oil being of singular benefit. Massage of the parts generally increases the inflammation and consequent tenderness; therefore, it must only be advocated after treatment has improved the systemic condition. If a relaxed condition of the vesicles and ampullæ exist, gentle stripping will sometimes be useful. Where there are associated urethral and bladder complications, all local treatment of these parts must be avoided until the disease in the vesicles and ampullæ is ameliorated, as they are very intolerant of instrumentation when invaded by a tubercular inflammation, and manipulation may cause unpleasant symptoms and sometimes death. If the vesiculitis and ampullitis have been properly relieved, and the bladder irritation or urethral discharge still continues, bladder douches of hot bichloride solutions 1 to 15,000 to 1 to 30,000 of four to six ounces, with natural expulsion of the same per urethra and repeated once every four days, may be of benefit. Climatic changes do as much, if not more, for these patients than anything else. A moderately high altitude, with dry and moderately cool air, which allows of out-of-door employment or recreation should be selected. Freedom from business cares or anxieties is important. If these means fail to relieve and

the other genito-urinary organs and the system in general appear free from tubercular deposits, the removal of the diseased parts may be advisable.

CHAPTER VI.

VESICULAR AND AMPULLAR ANOMALIES, CYSTS, GROWTHS, ETC.

Malformation of the Seminal Vesicles and Ampullæ.—Anomalies sometimes exist, but they are usually associated with malformation of the other genito-urinary organs. One or both vesicles may be absent, they may be fused together, or they may join and empty into a closed sac. They have been known to empty into the ureter, and to unite and form a common duct, passing along the penis parallel to the urethra, opening at the glans penis, producing a seemingly double urethra.

Injuries of the Seminal Vesicles and Ampullæ.—They are of rare occurrence, owing to their being deep-seated and to their bony protection. When they are injured the accompanying destruction of tissue is usually of such magnitude that the individual injury escapes notice.

Treatment.—This should be conducted on general surgical lines.

Remedies.—Arnica mont., Aconite, etc.

Cystic Diseases of the Seminal Vesicles and Ampullæ.—These conditions may be caused by obstruction in the ejaculatory ducts, or the closing of a duct of one of the sacs situated in the walls of the seminal vesicles. The cysts may be small and of no consequence, or of considerable size. Jacobson reports a case in which the seminal sac contained ten pints of a brown serous fluid, and which was apparently cured by two aspirations. Cysts of the seminal vesicles give rise to no special symptoms, except those common to chronic seminal vesiculitis. Their diagnosis depends upon rectal examination. Sometimes they cannot be differentiated from dermoid or other cysts.

Treatment.—Simple aspiration, or aspiration followed by the injection of a five per cent. carbolic acid solution, or a ten per cent. solution of iodoform in sterilized sweet oil, may be beneficial. Permanent drainage or removal of the cyst is sometimes necessary.

Concretions in the Seminal Vesicles and Ampullæ.—The solid masses sometimes found in these organs are composed of spermatazoa, mucus and epithelium. They are whitish in color, growing darker with age, finally becoming calcified and are probably due to an obstruction of the ducts of exit. These concretions may so obstruct the ejaculatory duct as to cause sterility, painful emissions, frequent micturition, tenesmus and many symptoms of posterior urethritis. The diagnosis depends upon rectal examination.

Treatment.—In some cases the concretions can be broken up and forced out by gentle massage, or crushed by pressure against a steel sound in the urethra. These means failing, the removal of the seminal vesicle may be required.

Malignant Growths of the Seminal Vesicles and Ampullæ.—These have occurred, but as they are always associated with malignant growths of other and neighboring organs, no special diagnostic points have been recognized.

Remedies.—Arsenicum, Rhus tox., Conium, etc.

CHAPTER VII.

PROSTATIC CONGESTION.

Etiology.—Chilling of the body, abnormal conditions of the urine, traumatism from sounds, catheters and other instruments, the passage of a renal calculus, an irritating prostatic injection or an imperfectly constructed or adjusted bicycle saddle may be the cause of an acute congestion of the prostate. The more chronic congestions are dependent upon unnatural sexual acts, *i. e.*, masturbation, conjugal onanism, sexual excesses and excessive sexual desire without gratification, or a highly concentrated condition of the urine, the result of gouty, lithæmic and other abnormal conditions of the blood.

Clinical History.—The objective symptoms are those of the early stage of acute prostatitis, such as a sense of weight and fulness or pain in the perineum, back and testes, rectal tenesmus, with increased and painful micturition. The urine is usually over acid. Nocturnal pollutions are frequent. The prostate, when examined, appears swollen, is sensitive to manipulation and encroaches to a varying degree upon the rectum.

Prognosis.—Acute cases recover rapidly, while the chronic are troublesome, and many, owing to inability to remove or discontinue the cause, are never cured.

Treatment.—The cause must be removed or discontinued. The treatment serviceable in the early stage of acute prostatitis will be found beneficial in acute congestion. In chronic congestion of the prostate the bowels must be carefully regulated, sexual hygiene observed and the urine rendered non-irritating by chemical means. The conjested condition is often greatly relieved by the daily use of hot sitz baths, or hot or cold rectal douches, through Kemp's prostatic cooler. Prostatic massage is frequently of decided benefit.

These adjuvants, with the indicated remedies, Aconite nap., Aloes, Arnica mont., Belladonna, Cantharides, Cubeba, Copaiva, Ferrum phos., Gelsemium, Kali brom., Lithium, Pulsatilla, Sandal-wood or Sabal ser. will, as a rule, be sufficient.

CHAPTER VIII.

ACUTE PROSTATITIS.

Etiology.—The prime cause is infection, generally the result of an extension backwards of an acute specific urethritis. It may be produced by an acrid condition of the urine or by the extension of a non-specific inflammation from neighboring parts. It is sometimes of hæmatogenic origin. Traumatism may cause inflammatory changes, but, if pyogenic germs are absent, a rapid return to health occurs.

The predisposing causes are numerous, and include everything which produces congestion of the parts or invites infection, such as masturbation, excessive venery, over-acidity or alkalinity of the urine, constipation, a varicose condition of the prostatic plexus, over-distension of the bladder, chilling of the general surface, instrumentation, urethral injections or cauterization, damaged conditions of the deep urethra, calculi of the prostate or bladder, prolonged sitting on damp, cold objects, external violence, and the ingestion of irritating drugs, like Turpentine, Cantharides, etc. An improperly adjusted or badly fitting bicycle saddle frequently causes a congestive irritation of the prostate.

Pathological Anatomy.—The prostate is swollen, hard and œdematous, and often attains from two to four times its original size. The surrounding tissues are also involved. If the inflammation is the result of an acute posterior urethritis the prostatic ducts and glands will be involved; frequently they degenerate into small muco-purulent sacs. From this condition the organ may return to health, or a large number of minute abscesses may develop through its substance ; these ultimately break down and coalesce to form larger abscesses, which may burrow in any direction.

Clinical History.—When the inflammation is of slight degree, there is fullness and uneasiness in the perineum and

rectum, with frequent urging to urinate, the urine being voided with difficulty, and its passage followed by a varying degree of relief. Defecation is generally accompanied by pain. These symptoms may disappear rapidly, and, if a urethritis was the exciting cause, the discharge associated with this condition will cease with the advent of the prostatitis, though it is sometimes replaced by a discharge of prostatic fluid. If the inflammation becomes more pronounced and the ducts and glands are involved, the pain may increase and become throbbing and lancinating or deep aching in character, with an increased sensation of fullness and soreness in the perineum and rectum, aggravated by crossing the legs, motion of any kind, pressure, defecation, urination, etc. If the examining finger be introduced into the rectum a hard, smooth mass, very sensitive and painful to touch, will be found.

In this stage there is frequent urging to stool, with pain and tenesmus, an uneasy feeling at the neck of the bladder and soreness above the symphysis pubis on deep pressure. The urine is voided in a small and unsatisfactory stream with terminal straining, sometimes accompanied by a drop of blood. The pain is agonizing and is referred to the perineum, rectum and anus, or shoots down the thighs. Violent erections are common and hæmorrhoids are frequently developed. These symptoms are often accompanied by fever which may have been ushered in by a chill.

The prostate may yet return to its normal condition. If suppuration takes place, chills, fever and all the symptoms of pyæmic infection will occur, and the swelling, when palpated through the rectum, will be boggy or fluctuating. As the swelling increases, diminishing still further the size of the urethra, the stream of urine becomes smaller and smaller until finally it is passed only in drops and great tenesmus or retention may follow.

Diagnosis.—This depends upon the presence of a hot, painful tumor occupying the position of the prostate, accompanied by the clinical symptoms already enumerated.

Prognosis.—The duration of this disease varies from a few days to a month. If abscesses develop it may terminate

fatally. The abscess may rupture spontaneously into the urethra, rectum, perineum, the space of Retzius, the sciatic foramen, peritoneum, etc. Phlebitis is a common complication when the abscess is not properly treated and is a frequent cause of death.

Treatment.—Rest in bed, hot sitz or general baths, fomentations to the perineum and direct applications of heat or cold to the parts by rectal enemas or with Kemp's prostatic cooler or a rectal psychophore. Counter irritation to the perineum and elevation of the pelvis may be required in some of the more severe cases.

The bowels may require a saline cathartic, but continued catharsis must not be encouraged. When retention of urine occurs, catheterization may be necessary. When required, the instrumentation should be preceeded by a deep douche of a 2 per cent. solution of cocaine. The catheter should be retained to give continued drainage until the acute symptoms disappear.

The diet must be light and consist principally of broths, milk, matzoon, koumyss, rice, stale bread, etc. Alcohol must be avoided in all its forms. When an abscess develops and it can be opened through the perineum, the annoyance and trouble of ischio-rectal or other fistulæ may be avoided. If fluctuation can be distinguished, or the presence of pus is reasonably certain, the patient should be surgically prepared, placed in the lithotomy position and a long, straight, sharp-pointed, double-edged bistoury introduced in the median line of the perineum, about one inch in front of the anus, and with the guidance of the forefinger of the left hand in the rectum its point is carried forward into the pus cavity. After evacuation the parts should be dressed with the usual antiseptic precautions and proper drainage instituted. If, after proper antiseptic douches, the cavity is over-distended with a warm emulsion composed of 10 per cent. iodoform and 90 per cent. vaseline and retained by proper dressings recovery is often surprisingly rapid. Should the abscess open into the urethra, as soon as the acute symptoms subside the pus cavity must be irrigated twice daily through the urethra by means of a catheter with a saturated solution of Boric Acid, a 50 per cent.

solution of Electrozone, or of Nitrate of silver, 1 to 2000, the prostatic pus cavity being well emptied by massage before, during and after each irrigation. The local treatment must not be discontinued until the cavity is completely closed, as there is always a tendency to recurrence and the condition becoming chronic.

The remedies most frequently indicated are: Aconite nap., Aloes soc., Belladonna, Bryonia alb., Cantharides, Clematis erect., Chimaphila, Digitalis, Ferrum phos., Gelsemium, Hepar sulph., Heckla lava, Kali brom., Lithium, Mercurius, Pulsatilla, Sabadilla, Silicea, Sulphur and Thuja oc.

CHAPTER IX.

CHRONIC CATARRHAL PROSTATITIS.

Etiology.—This disease is frequently the sequel of an acute gonorrhœal prostatitis, a stricture of the urethra, or it may arise by extension from a posterior urethritis or a vesical inflammation. The chief exciting cause is infection. It is frequently a result of masturbation, sexual excesses, unnatural sexual acts and irritating deep urethral injections. It may also be engendered by hæmorrhoids, chronic constipation, fissure and pruritis ani, highly concentrated urine, exposure to dampness, cold, etc. It is a disease of early manhood and middle life.

Pathological Anatomy.—The prostate may be normal, swollen or atrophied. Enlargement being caused by its infiltration with lymph or pus. The glands composing the lobules of the prostate may be generally, unilaterally or irregularly diseased. The prostate may present a general swollen condition, or it may be nodular. The small rounded masses of inflammation may be located deep in the structure of the organ or upon its surface. On section it will be found spotted, red, somewhat boggy, with here and there a small collection of pus, the whole organ being less firm than normal. The mucous surfaces, the sinuses of the prostate, the mucous follicles and their ducts show marked pathological changes. The mucous lining of the tubules is inflamed and the inflammation is often continuous with a similar condition in the prostatic urethra. The tubules are generally dilated and distended by the inflammatory products. The connective tissue surrounding the tubules and glands is infiltrated with a round-celled growth and the blood vessels are engorged.

When the disease has resulted from stricture of the urethra the coats of the prostatic sinuses are thinned, though they may

be thickened, and the mouths of the prostatic gland are open and pouchy.

Clinical History.—This varies greatly with the temperament, age, habits of the patient and the original cause. At the best, it is a very chronic disease, and generally has a history of exacerbations, the result of indiscretions in diet, apparel worn, or acts committed; sometimes there is no apparent reason. The symptoms presented by this disease are legion, varying from the most trivial to the most complex. Frequently they bear apparently but little relative proportion to the pathological involvement. The urinary symptoms are in many respects those of posterior urethritis. Micturition is increased in frequency. It may not be troublesome, or the calls may come every half hour. Often there is a slight twinge at the end of the act, and possibly a drop of blood or a little burning or tingling as the urine passes over the prostatic portion of the urethra. The urinary flow is a little slow, or the urine may simply drop from the penis. The pain and frequency of micturition are particularly increased by standing and somewhat by crossing the legs.

The urine is of low specific gravity, is pale in color and alkaline or feebly acid in reaction, cloudy, holding in suspension small masses of muco-pus, which are particularly noticeable in the first ounce passed, the patient should, therefore, void the urine in two portions for examination, when the first will contain mucus in abundance, while the second may be clear. This does not always follow, however, as the compressor urethræ muscle may be tightly or spasmodically contracted, causing the discharge to back up and empty into the bladder, between the acts of micturition, thus mixing the discharge with the urine. If the urine is allowed to stand for a few hours an iridescent pedicle will generally form upon its surface.

Pain is usually present; it may be referred to the sacrum, anus, perineum or the inguinal region and sometimes to the neck of the bladder or end of the glans penis. If in the region of the bladder and rectum it is commonly accompanied by an uneasiness or fulness deep in the perineum, which is in-

creased by sitting on a hard chair, horseback and bicycle riding, standing or muscular exercise.

When the prostate is examined through the rectum in those under forty-five, the organ appears enlarged and encroaches on the rectal space. Frequently it is very sensitive to manipulation. If the prostate is generally involved it will be smooth and swollen. More frequently it is quite nodular. These nodular masses are located irregularly; sometimes they are deep-seated. When situated upon the surface they may give the prostate a decided irregular contour. The left lobe is usually more extensively involved than the right.

When catarrhal prostatitis exists in those over fifty-five, extensive peri-tubular infiltration predominates, giving the impression of increased hardness to the gland. At a comparatively early stage there may be a general enlargement, but at a later period, the infiltration undergoes atrophy, producing great decrease in its volume. If pressure be applied by the finger-tip to the surface of a prostate undergoing a catarrhal inflammation a varying quantity of prostatic fluid will be discharged from the over-distended glands into the prostatic urethra. The same prostatic discharge may occur when straining at stool, during muscular exercise or even without apparent reason, constituting a prostatorrhœa. This secretion is composed largely of mucus and granular phosphates, and is the product of over-activity of the epithelial cells lining the prostatic tubules. The microscope will differentiate it from a gleety or spermatorrhœic discharge, the examination revealing pus, blood corpuscles, epithelium, amyloid bodies, fatty débris, prostatic concretions, granular phosphates, triple phosphates, crystalline phosphates, oxalate of lime, etc.

When prostatic fluid has been forced out by a hard stool, by means of the finger, or appears as a very slight moisture at the meatus, the addition of a one per cent. solution of Phosphate of Ammonia to a drop of it on a glass slide will sometimes give the characteristic phosphatic crystals, known as Böttcher's crystals; but, as urethral and prostatic discharges are usually mixed, appearing as a muco-purulent discharge, the reaction does not always occur. This discharge varies greatly in abundance; it may be so profuse as to require fre-

quent attention to prevent soiling of the linen: it may be observed only after stool, at the end of micturition, or only in the urine voided, giving to the latter, on standing, the appearance as though it was undergoing crystallization by freezing. After a short time the discharge settles into a thick, hazy mass at the bottom of the test glass, adhering to or leaving a pasty substance sticking to its surface. Occasionally it is granular in character, resembling fine sand or plaster of Paris. This variety is not, as a rule, continuous, but occurs only after muscular exercise or prolonged forced retention of the urine. When these granular phosphates are voided, they cause burning and soreness along the urethral canal, and there may be associated faintness and exhaustion. The urethra is usually involved, and the introduction of instruments is consequently painful, though, in some of the more chronic cases anæsthesia may be present.

Derangements of sexual functions are very pronounced, frequently being the first manifestations which call the patient's attention to the developing disease. There may be increased sexual erethism and desire, accompanied by premature ejaculation. As the disease progresses, erections become less frequent, less permanent, and less satisfactory; finally all power of erection disappears, the thrill of ejaculation is gradually lost, and even prolonged coitus may not be followed by ejaculation. Pathological nocturnal and diurnal pollutions may even occur with their train of distressing symptoms, together with physical and mental exhaustion after coitus. Great depression, despondency, melancholia, etc., soon follow. Headache and muscular pain are common, with loss of strength, flesh, and appetite, and mental and physical incapacity gradually but surely creep on.

These patients become nervous and hysterical, weak, feverish and anæmic, and it is with the utmost difficulty that they can be convinced they are not suffering from spermatorrhœa when they see the discharge from the urethra or notice a suspicious moisture at the meatus after a hard stool, even when the microscope demonstrates the absence of spermatozoa.

Diagnosis.—This condition might sometimes be confounded with tubercular prostatitis, but it is more chronic

than the latter, although it has about the same history. The absence of tuberculosis elsewhere and the microscopic examination of the discharge will be of much assistance. Hypertrophy of the prostate can often be distinguished by the age of the patient, it rarely occuring before the fifty-fifth or the fifty-eighth year, and rectal examination will easily differentiate chronic catarrhal prostatitis from a seminal vesiculitis, ampullitis or inflammation of the verumontanum.

Prognosis.—Unless absolute hygiene is strictly observed, and alcoholic excesses, avoided the response to treatment will be slow and unsatisfactory. Young men usually progress more rapidly towards cure than those more advanced in life. In those who are overwhelmed with the magnitude and incurability of their disease, or who are suffering with an associated cystitis, or where there is no apparent cause, treatment is often tedious and disappointing. Everyone, however, may expect to be benefited, and with proper care and perseverance a cure may be looked for in the majority of cases.

Treatment.—The diet must be plain, nourishing, and not too stimulating. Condiments, salt food, coffee, tomatoes and asparagus must always be forbidden. Alcohol must be prohibited, and moderation in all things advised, with out-door exercise, removal to the seaside or to the mountains, cold sponge baths in the morning, and rest in the recumbent position when possible. Sexual intercourse must be interdicted and carnal thoughts avoided. In the married, sexual relations may be allowed under proper restrictions. The bowels should be evacuated daily by enemas. Sitz baths of ten to twenty minutes' duration at bedtime should not be forgotten. Massage of the prostate is of the utmost importance. It can be given most satisfactorily with the patient in the position recommended in the treatment of chronic seminal vesiculitis, in the dorsal position with the limbs slightly flexed, or in the knee and elbow position. After the patient is placed in the selected position the first or middle finger of the operator, protected by a long rubber tip and anointed with vaseline, is introduced into the rectum. If the rubber tip, which not only protects the finger from becoming soiled, etc., but prevents injury to the mucous membrane of the rectum by a

rough finger nail, cannot be procured, the finger, and especially the nail, should be properly lubricated and protected with soap before it is introduced. The diseased gland is massaged from right to left and vice versa, the tip of the finger being used and pressure made towards the symphysis pubis; the gland should also be massaged forward and backward. The massage should be continued from two to five minutes, and may be repeated with advantage every fifth day. Sometimes it is advisable to introduce a full-sized steel sound through the prostatic urethra and retain it during the massage. Feleki invented an instrument for applying massage, and Swinburne has recently modified it to a slight degree, but the author is of the opinion that instruments of this nature may cause more injury than benefit, and that the massage should only be given with the finger.

The passage of steel sounds and direct local treatment are very efficacious. The sound must be passed with the utmost gentleness and care or it will be arrested by the compressor urethræ, which is usually in a state of spasmodic contraction, and is one of the many causes of the unpleasant symptoms which often arise in this disease. In some cases the author's or the Kollmann antero-posterior urethral dilator can be used to advantage. Some attribute the good results derived to the cold sound and go further and apply cold for five minutes to the parts by means of a hollow sound or urethral psychophore. Others claim that the relief is due to the pressure of the sound, which forces the blood out of the organ. The sound when used should be passed every five or eight days. The rectal psychophore and Kemp's rectal cooler should not be forgotten. When the mucous membrane of the prostate is seriously affected, as shown by the presence of round masses from the lacunæ or crypts of the glands, irrigation with some of the silver or Permanganate of Potash solutions should be given, as well as applications by means of the Keyes-Ultzman capillary syringe, of two or three drops of Nitrate of Silver solution (one to ten grains to the ounce of distilled water), or a few drops of a solution of varying strength of tincture of Iodine, Carbolic acid and Boroglyceride, equal parts, or dilated and irrigated with the

Bang's syringe-sound. These applications must not be repeated oftener than once in five days. Some authorities advise repeated applications of a mild cantharidal collodion to the perinæum, painting one side up to the median raphé and keeping the patient in bed for twenty-four hours; when this side has healed the opposite is painted in like manner, the scrotum and anus being protected by absorbent cotton.

Rectal suppositories containing one and a half or two grains of Iodoform or Icthyol have been beneficial, one being introduced on retiring, after first cleansing the rectum with a douche.

The remedies symptomatically indicated are Agaricus, Alumina, Arnica mont., Aurum met., Baryta carb., Brachyglottis, Caladium, Cannabis Ind., Calcarea carb., Carbonicum sulph., Clematis erect., Conium, Cubeba, Equisetum, Eryngium, Ferrum, Gnaphalium, Graphites, Hamamelis, Hepar sulph., Hydrocotyle, Ignatia, Iridium, Kali brom., Kali bich., Kali carb., Lachesis, Lilium, Lycopodium, Mercurius, Magnesia carb., Magnesia mur., Muriatic acid, Nitric acid, Nux vom., Pulsatilla, Phosphorus, Phosphoric acid, Phytolacca, Sabadilla, Sabal ser., Sarsaparilla, Selenium, Sepia, Silicea, Sulphur, Thuja occ., Tribulus ter., Ustillago, Zincum, etc.

CHAPTER X.

CHRONIC CATARRHAL INFLAMMATION OF THE VERUMONTANUM AND THE PROSTATIC URETHRA.

Etiology.—Unnatural sexual habits, particularly masturbation and conjugal onanism, are the most frequent causes of this disease. Congenital or acquired strictures, by producing hyperæmia from the pounding of the mucous membrane of the bulbous and prostatic urethra by the urine with each act of micturition, as well as the incomplete cure of an acute posterior urethritis, often produce it.

Pathological Anatomy.—In the early stages, the mucous membrane of the posterior urethra is engorged with blood. As the disease progresses, the mucous membrane takes on all the characteristics of a catarrhal inflammation, extending into the open ends of the tubules of the prostate, the ejaculatory ducts and also involves the sub-mucous tissues, the verumontanum being especially hyperæmic and irritated. Catarrhal inflammation of the posterior urethra causes changes in the terminal sensory nerve filaments located there, producing irritability of the erection centers, leading to exhaustion of the nerve power, and consequent sexual weakness. This is readily explained when it is remembered that the vesical plexus of nerves supplying the prostate, seminal vesicles and bladder is formed by the union of the anastomosing branches of the hypogastric plexus; the sympathetic filament being derived from the sacral ganglia and the pudendal plexus of the sacral nerves. This nerve supply gives interpretation to the pain in the hypogastric region, back, rectum, scrotum and thighs, so common in local disease of the prostatic urethra.

Clinical History.—This disease is of frequent occurrence in young men, sexual derangements giving the first evidences

of its presence by premature, weak and unsatisfactory ejaculations, excessive sexual desire, and diminished power of erection or inability to command an erection when desired with excessive pathological pollutions, the emissions consisting of mucus, phosphates, oxalate of lime, a few pus cells and an occasional spermatozoön, which is deficient in size and activity, and a slight discharge from the meatus, often most profuse in the morning, caused not only by the catarrh of the posterior urethra, but also the result of catarrhal invasion of the ejaculatory ducts with consequent loss of tone and natural contractile power of retaining the seminal and ampullar fluid. The urine has a low specific gravity, is alkaline, neutral or slightly acid in re-action, pale in color, increased in quantity containing a variable number of epithelial shreds. If it be examined by the three-glass test, the first will contain a large number of these shreds, the second will be clear and the third quite cloudy, owing to the presence of a large amount of mucus and granular phosphates which are squeezed out at the end of micturition by the prostate in its final contraction. Urination, both nocturnal and diurnal, is increased in frequency, and often accompanied with considerable pain, which may be shooting in character, extending to the end of the penis, down the scrotum, into the rectum, or be burning, with a feeling as though a drop of molten lead was passing down the urethra. If a bulbous bougie is introduced, it will cause sharp agonizing pain as it goes through the posterior urethra, particularly as it passes over the verumontanum; on removal, a few drops of blood will generally be noticed upon it. When the prostate is examined per rectum, nothing abnormal may be found, but if a steel sound be introduced previous to the examination, pressure against it through the prostate will cause great pain and distress. This class of patients may enjoy good health, or they may be markedly depressed and melancholic.

Prognosis.—If proper general and sexual hygiene be advised and carried out, in conjunction with the indicated remedy and proper local treatment, recovery should be rapid and complete.

Treatment.—All congenital or acquired defects must re-

ceive proper attention. A full-sized cold steel urethral sound, 28 to 34 F., should be introduced once a week and retained for three minutes. In this variety of sexual disorder the syringe-sound invented by Bangs will be very useful, as it possesses all the properties of the steel sound and at the same time allows of the application of the selected astringent solution while the folds of the urethral mucous-membrane are slightly stretched and the mouths of the ducts open, obviating the necessity of double instrumentation and the accompanying irritation. The sound should always be lubricated with lubri-chondrin or glycerine, as they are readily soluble in water, and do not affect the action of the selected astringent. All things considered the silver salts will, as a rule, be found the most satisfactory. It is usually best to commence with a solution of Nitrate of Silver, 1 to 1,000, increasing the strength gradually as indicated. Deep urethral instillations, douches and suppositories, as advised in the sections devoted to sexual disorders and to chronic prostatitis, will be beneficial. The cup steel sound is often employed, as a proper silver or tannic acid ointment can be carried with it. Diet must be nourishing, easily digestible and non-irritating. Asparagus, celery, tomatoes, spiced dishes, alcohol and coffee must always be avoided.

The urine must be rendered bland and non-irritating. If it is over-alkaline, Boric Acid or Salol in five-grain doses after each meal will be very beneficial; if over-acid it can be readily neutralized by administering a tablespoonful of the following in a glass of water one hour after each meal:

℞. Potassii bicarbonate . . . . . ℥ i
Tincture hyoscyamus . . . . . .
Fld. ext kav. kav . . . . . aa℥ ss.
Aquæ . . . . . ad. ℥ viii.

The following remedies as symptomatically indicated have been found useful: Agnus cast., Ambra, Argentum nit., Borax, Calcarea carb., Cannabis Ind., Cannabis sat., Cantharides, Capsicum ani., Carbo veg., Clematis, Cubeba, Cuprum acet., Eryngium, Gelsemium, Gnaphalium, Graphites, Ignatia, Iodium, Kali brom., Kali bich., Kali carb., Lachesis, Lithium,

Lycopodium, Magnesia mur., Mercurius, Mezereum, Natrum mur., Natrum carb., Nux vom., Paris quad., Petroleum, Petroselinum, Staphysagria, Selenium, Sepia, Silicea, Sabal ser., Stannum, Thuja oc , Zincum and Ustillago.

CHAPTER XI.

HYPERTROPHY OF THE PROSTATE.

No absolutely satisfactory explanation has yet been given as to the cause of prostatic hypertrophy. For many years the medical world believed that it was due to or was the result of advancing years, and that old age was its only cause. Sir Benjamin Brodie expressed this view when he said: "When the hair becomes gray and scanty, when the specks of earthy matter begin to be deposited in the tunics of the arteries, and when a white zone is formed at the margin of the cornea and at the same period, the prostate gland usually —I might say perhaps invariably—becomes increased in size." It is true that the prostate shows a decided inclination to true hypertrophy after the fiftieth year, but there are no cases on record in which it has developed after the seventieth year, even when many years have been added to the three score and ten. Numerous cases have been reported as occuring before the fiftieth year. Doctor Mudd found a true hypertrophy in a negro twenty-seven years of age, and one in a child of five. Thompson says that an appreciable enlargement of the prostate will be encountered in about one-eighth of all men who have passed their sixtieth year, and that the overgrowth may be discovered in about one-third of all men of that age and upwards. White is of the opinion that the growth is caused by perverted functional activity of the testes. He believes that the function of the testes is two-fold, the reproduction of the species and the development and preservation of the sexual characteristics of the individual, the need for the exercise of the latter function ceasing when full adult life is reached, its continuance after puberty leading to prostatic enlargement. Taylor is of the opinion that prostatic hypertrophy takes its origin in chronic catarrhal prostatitis.

A careful study of these cases and the literature on the subject can but develop the opinion that everything which

tends to increase the function, produce active or passive congestion, transitory or chronic, of the prostate will necessarily increase the growth of its glandular, tubular, intermuscular and cellular tissues, in time producing a true hypertrophy, which would not have occurred had a normal condition been maintained.

The principal causes of prostatic hypertrophy are, therefore, (1) perverted sexual acts, habital sensual indulgence and unchaste thoughts; (2) imperfectly treated or neglected simple or bacterial posterior urethral inflammations; (3) abnormal functional activity of the testes; (4) obstructions in the urethral canal and other structural changes.

Pathological Anatomy.—The morbid changes in hypertrophy of the prostate consist of a local or general overgrowth of the component cellular elements of the organ. There may be a general increase in all the normal tissues, or any one of the structural elements may be developed at the expense of or beyond the other. Hence there are four varieties or general divisions:

First.—Overgrowth of the glandular tissue. As the disease advances the glandular elements disappear, giving place to a dense fibrous tissue.

Second.—Overgrowth of the stroma, connective and muscular tissues without much change in the glandular. In this variety the prostate attains considerable size and causes pronounced symptoms. The muscular and fibrous tissues are increased, often at the expense of the glandular. In well-marked cases, the organ may finally consist of little more than a circular bunch of musculo-fibrous tissue.

Third.—General uniform development of all the normal structural elements. This is the most common variety, and gives rise to few if any symptoms.

Fourth.—Localized overgrowth of one or all the elementary tissues constituting a tumor and not confined to any particular portion of the gland.

Enlargement of the prostate may involve both lateral lobes and the median portion; it may be confined to the median portion, or be more prominent in either the right or left lobe. The overgrowth may be limited to the posterior

isthmus, it may project backward into the bladder, into the urethra, or appear as a pedunculated mass or collar at the neck of the bladder. In overgrowths of the different portions of the prostate, the pathological process generally progresses bilaterally, though there is a tendency to more development in the so-called middle lobe, due probably to the less degree of resistance in this direction. The degree of enlargement may vary from a simple rotundity to the size of a cocoanut. A prostate gland, weighing over six drachms, may be considered enlarged, its antero-posterior diameter being correspondingly increased and the canal lengthened. While the contour of prostatic enlargement is of interest, its importance depends upon the changes produced in the length, direction and size of the prostatic urethra, especially at the neck of the bladder. Symptoms may be absent. In fact a good proportion of the cases of hypertrophy of the prostate are never recognized by their clinical history, even when the gland is greatly enlarged. When infiltration involves the posterior median part of the organ the condition is different and the symptoms are numerous and varied. This portion is not encapsulated, consequently the growth rises from the floor of the posterior urethra and the posterior or middle lobe may project upwards like an extended lip, changing the normal outlet of the bladder into a crescentic opening with its convexity upwards. It may also extend backwards into the bladder, being shaped like a large pear or slightly pedunculated. There is frequently a bar of hypertrophied mucous membrane just behind the prostate drawn up by the lateral hypertrophy. These conditions cause the long train of serious and often fatal symptoms which accompany this disease.

As the prostate enlarges, the return circulation on its surface, through which the venous circulation of the bladder is conducted, becomes interfered with, and passive congestion of the latter results. The dam of mucous membrane behind the prostate and the hypertrophied posterior lip not only interfere with the natural discharge of urine, but prevent the complete emptying of the bladder, thus producing pathological changes,

—chronic cystitis, cystic calculi, dilatation of the ureters, pyelitis, nephritis, etc.

Clinical History.—This depends to a very large degree upon the functional change in micturition. Consequently, the period at which the prostatic hypertrophy is discovered will depend upon the anatomical changes produced in the prostatic urethra and bladder.

As obstructive hypertrophy advances, micturition becomes more frequent, especially at night; the inclination to urinate may occur as often as every half hour. The patient often has to wait a short time before the flow begins, the stream coming slowly, gradually increasing in force, or the main stream may be projected forward, while some of it at the same time dribbles or drops down perpendicularly from the end of the penis. On straining, the stream grows smaller, the effort being accompanied by uneasiness and pain in the hypogastric region, perineum or rectum.

If infection does not take place with consequent cystitis and posterior urethritis, the frequency of urination, etc., may be the only symptoms complained of until incontinence of retention develops.

The frequency of micturition during this early period is due to the residual urine, which varies in proportion to the degree of prostatic obstruction. As the amount of residual urine increases, atrophy and degeneration of the walls of the bladder take place.

If the obstruction is not removed and the inflammation extends and involves the kidneys, polyuria results, the urine becoming profuse, with a specific gravity of 1003 to 1006, and contains albumen and casts. In this case the physician must be extremely careful as to the manner in which he performs the first instrumentation.

These and many other symptoms may be overlooked until after a hearty meal, over-stimulation or after chilling of the lower extremities, micturition suddenly becomes impossible and is followed by over-distension and atony of the bladder, producing excruciating pain, etc. This condition may possibly occur in the following manner: After the bladder has been over-distended the neck is pulled open and there is

an overflow and apparent relief; but the attack has added to the original lesion, producing increased atony of the bladder with aggravation of the distressing symptoms.

Generally, long before incontinence of retention appears, infection of the bladder, true cystitis occurs, as the result of infection from without, instrumentation from within, or the presence of bacilli coli communi, which have passed directly from the intestine, or, indirectly, through the kidneys, into the bladder. With the advent of the cystitis, micturition becomes painful, the pain varying greatly in character. It may manifest itself as a weak, tired aching, be continuous or intermittent, lancinating or dull, referred to the hypogastric region, perineum, scrotum, groins or inner side of the thighs. There are associated sharp pains in the urethra, frequently referred to the glans penis, accompanied with much burning and straining, which, if encouraged, causes frequent and sudden interruption of the stream. The urine at the same time becomes offensive, turbid, alkaline and may even be associated with a muco-purulent discharge from the urethra. The cystitis and retention increase as the disease progresses, and the ureters, pelvis of the kidney and the kidneys themselves become involved. The walls of the bladder become thickened, sacculated, large calculi form and the urging to urinate grows more frequent and painful. Sometimes the location of the hypertrophy makes it impossible to pass a catheter, and sudden retention can only be relieved by aspiration. This class of patients finally grow thin, haggard and feverish from toxæmia, etc. Hypertrophy of the prostate in the aged may always be suspected in those who urinate frequently and have digestive disturbances. In the latter stage of this disease, the severe tenesmus associated with micturition often causes hæmorrhoids, rectal prolapse, abdominal hernia, etc.

Sexual erethism is frequently present and may become annoying and harassing. Priapism and nocturnal emissions are common; in some there is a varying degree of sexual perversion with lust which is not satisfied by coitus and may give rise to many excessive and unnatural practices. In others, who constitute the larger class of prostatics, sexual desire slowly disappears and a true impotence develops.

Diagnosis.—Prostatic hypertrophy should be suspected in men over fifty-five years of age who complain of frequent urination, particularly at night, when the act is begun with difficulty, the stream seeming full-sized but feeble and is followed by a sensation as though the bladder was not completely emptied.

In urinary disorders when the patient is over fifty years of age the hypogastric region should always be examined to ascertain whether there is an enlargement indicating an atonic or distended bladder, as it sometimes attains the size of a fœtal head before being discovered. The urine should be passed in the presence of the physician and the effect of forced expulsion noticed. If hypertrophy is present, the urinary stream will be diminished, and the urine will dribble after the act.

To examine the prostate per rectum place the patient in the dorsal position with the thighs flexed on the abdomen; lubricate the first or second finger with soap or vaseline, introduce it into the rectum and carry it along the anterior wall. The prostate will be between it and the pubes and its form and character can be easily mapped out; at the same time, by bi-manual examination, the size and condition of the bladder can be ascertained and the amount of residual urine estimated. Finally introduce a sterile catheter and notice carefully how it enters the bladder. If catheterization is not successful, owing to hypertrophy of the posterior median lobe or dam, a Thompson stone-searcher should be used. This instrument can also be utilized to interrogate the presence of stone which is often associated in advanced cases, as well as to empty the bladder. Stone can generally be detected and enlargements mapped out by turning the searcher from side to side and drawing it backwards until the curve rests on the posterior median lip. Sometimes nothing is detected except a slight sensitiveness and enlargement of the prostate, though the most serious symptoms may be present.

Treatment. — When enlargement of the prostate assumes sufficient magnitude to cause distressing symptoms, the milder means for relief should be tried before the more radical are resorted to. If the treatment is fairly well directed

and observed, all inconvenience may be prevented or relieved. A warm, equable climate is of great advantage. The body should be clothed summer and winter with flannel; when arising at night woolen slippers should be worn. Moderation in all things must be the guide and all over-excitement avoided.

The diet must be carefully regulated and consist principally of broiled steaks, chops, game, poultry, fish, well-cooked vegetables or fruits, eggs, milk, farinaceous food, etc. Alcoholics of all kinds, if advised, must be prescribed with caution and discretion. Thompson, however, advises cider which is not sweet or over acid. Pork, dried and salted meats of all kinds, pastry, sweets, highly seasoned food, rich soups, cheese, uncooked, fruits, pickles, condiments of all kinds, as well as tea and coffee, must be strictly interdicted. Plenty of milk, butter-milk and effervescing alkaline mineral waters should, however, be advised. Horseback riding and wheeling must be forbidden, and mental and physical labor never carried to the point of fatigue. Exercise must be carefully regulated, walking and golfing being the most beneficial, but driving over smooth roads is not objectionable. Sexual excitement is harmful and should, therefore, be prohibited.

The bladder should never be allowed to become over-distended. The patient must be counselled to avoid straining while urinating, even when the desire is urgent. Dr. Hale has suggested that the penis be grasped by the patient at the time of urination, thus obstructing the flow in the pendulous urethra and over-distending the membraneous and prostatic part of the canal. When the stream is suddenly released, the dam caused by the enlarged prostate will remain open and allow a good-sized flow, provided straining is avoided. By this simple procedure, patients may for years avoid the necessity of the catheter or operation. If from chilling of the surface, over-eating, or neglect of the calls of nature, retention occurs, warmth and the indicated remedies, Aconite, Gelsemium, etc., should be administered. These failing, Bangs's suggestion of placing the patient in bed with the pelvis elevated, giving a high rectal enema and irrigating the urethra with a hot Boric Acid solution, repeated in an hour or two if necessary.

This is sometimes followed by a spurt of urine, with evidence of relief on the part of the patient. When these means fail, the catheter or aspirator will be required for immediate relief.

In the more obstinate cases, with atony of the bladder and retention of the urine, the catheter may be relied upon to make life endurable. A large-sized catheter is frequently successfully introduced while a smaller one fails.

The amount of residual urine should always be approximately estimated, and whenever it exceeds two ounces systematic catheterization is usually indicated. As a rule, patients having from two to four ounces of residual urine must be catheterized once daily, and once more for each additional two ounces. In removing the catheter the distal end must always be closed by pressure of the finger, to prevent leakage of urine along the urethra, which, if the canal be abraded or diseased, may produce a urethral fever. In withdrawing the urine from an overdistended or diseased bladder care must be given to the amount removed. If the quantity is large and it is entirely removed at the first or even at the second catheterization it may cause syncope, which may be followed by urethral fever and death.

Sometimes the passage of an ordinary catheter is impossible, yet a silver catheter with a long curve may succeed; in other cases a soft, elastic catheter will act best. It may be necessary to use Mercier's catheter, with one or two elbows, which compel the point to follow the roof of the canal and thus over-ride the dam; or an English catheter placed for a few moments in hot water and moulded to an exaggerated curve, then cooled in ice water; if introduced rapidly with stylet removed, it will retain its form, and often succeeds in entering the bladder. The catheters must always be carefully cared for and kept aseptic. The bladder after each catheterization, if cystitis exists, should be carefully washed out, and a little of the selected solution allowed to remain as advised on page 42. Cystitis and pyelitis are often greatly relieved by the internal administration of Boric Acid, Salol or Urotropin in appropriate doses.

Before introducing a catheter it should be rendered thor-

oughly sterile, and during the operation strict asepsis and antisepsis must be observed.

The following advice is of value to those about to commence a catheter life: Procure twice as many catheters as may be needed for a single day, a fresh instrument to be used for each catheterization; a metal box arranged for sterilization by Paraform; a bottle of tablets of Bichloride of Mercury, one tablet to a pint of hot water making a solution of 1 to 1000; a roll of bichloride gauze, a package of absorbent cotton, a tube of lubri-chondrin or sterilized vaseline, two ounces of green soap, a quarter of a pound of Boric Acid, a teaspoonful to a pint of hot water making a proper solution, and a dozen towels, which must always be boiled, sun-dried or baked before using. To sterilize the catheters, wash them in green soap and hot water, rinse thoroughly in plain hot water, wrap them separately in pieces of bichloride gauze, and together in a towel, and place in the Paraform box for twenty-four hours, after which they may be removed from the sterilizer and used as required. When catheterization is necessary wash the hands in green soap and hot water and render them aseptic in a bichloride solution, 1 to 1000; dip a pledget of cotton in the bichloride solution and with it thoroughly cleanse the end of the penis. Lay a clean towel about the organ, remove a catheter from the towel, dip it for a moment in the hot Boric Acid solution, lubricate with the lubri-chondrin and introduce. After using, wash and syringe out the catheter with green soap and hot water, rinse in plain hot water, wrap in a clean towel, where it can be kept until final preparations for sterilization are made as above directed.

Rectal tamponades of the prostate, massage and injections of cocaine into the parenchyma of the testicles to produce atrophy have had their advocates. Massage in selected cases has been of great service, and in others electricity has been of benefit. When urinary obstruction is only moderate, or even when it is of considerable magnitude, with compensatory hypertrophy of the bladder and a consequent small amount of sterile residual urine, and catheterization is easy and painless, the suggestions already enumerated will be all

sufficient. But when instrumentation becomes difficult, painful and frequently required, the urine giving evidence of bacterial infection, surgical measures are often indicated, and if an appropriate operation be performed at this period the most satisfactory results may be expected. The operations devised for the cure or relief of this disease may be divided into five classes: (1) Incision of the prostate with Bottini's galvano-caustic incisor. (2) Prostatectomy. (3) Prostatotomy. (4) Emasculation, and (5) Vasectomy.

Galvano-Caustic Incision.—Bottini reports eighty cases with thirty-two cures, eleven improved, twelve without results and two deaths. He burns away the obstructing part of the prostate with the thermo-galvanic cautery introduced through the urethra. This requires a cautery plate and a cautery knife, each inserted into the concavity of a short-beaked catheter, with conducting wires to the plate or knife, and two water canals for cooling purposes. The plate instrument is passed as an ordinary catheter, and, when the point enters the bladder, it is turned downward, as in sounding for stone, and gently drawn forward so as to cause the beak to press against the prostate and bring the cautery plate against the bar, when the current is turned on for a minute. This method is not free from danger and is contraindicated when the kidneys are involved; it is best adapted to cases with persistent strangury.

Freudenberg has modified Bottini's incisor in such a way that it can be rendered thoroughly aseptic and is entirely under the control of the operator. This instrument resembles a lithotrite. It consists of two arms, a male and a female. The male is moved forward and backward by a screw in the handle of the instrument and is heated by the connecting galvano-cautery battery. It is especially suited for cases where catheterization is difficult and painful, and it would be considered dangerous to perform a prostatectomy. The operation can be made under cocaine anesthesia. The patient is placed for operation in a slightly recumbent position, with the hips elevated. There is practically no danger of septic infection, the absorbent ducts being closed by the cauterization. The operation consists in burning grooves through the pros-

tate at the point of greatest obstruction. The current is derived from a galvano-cautery battery, fitted up with a proper milliampère meter, which indicates the exact temperature and condition of the incisor. After proper catheterization and bladder toilet, the closed instrument is introduced into the bladder and the arms hooked behind the prostate, the cooling apparatus having previously been set in motion and placed in charge of a thoroughly trustworthy assistant, the current, by means of a screw in the handle, is turned on, the required strength having been determined by a previous experiment with the heated tip on a piece of moist sterile gauze. A short groove is burned from behind forwards in the roof of the prostatic urethra. The instrument is then pushed back into place, turned over and another groove directly opposite is burnt backward towards the rectum; finally a third lateral one through that lobe of the prostate which appears to be the most hypertrophied. The current should be turned on for about fifteen seconds before the blade is engaged in the prostatic tissue. If the blade does not work easily, the current should be slightly increased; it is also well to increase it to a slight degree, on returning the male blade to its position in the female blade. After the operation the patients often complain of some burning when urinating. They are, however, usually able to be out of bed by the second day. If the bladder is carefully irrigated before the operation, a rise in temperature rarely occurs. Hæmorrhage is not common. Permanent drainage is never required, though the bladder should be washed daily to relieve the cystitis. Bottini's operation leaves the anatomical parts intact, and does not destroy the tissues or organs, which at certain periods of life are of great seeming importance, but it renders a permanent mechanical division of the obstruction, with rapid relief, a cure in many cases, and has an exceedingly low death rate.

Tobin has successfully removed intra-vesicular prostatic growths with an ecraseur introduced through the urethra, the loop being hooked over the projecting mass and held by the forefinger introduced through a supra-pubic opening. The advantage of this method lies in the removal of only that portion of the gland which interferes with the flow of urine,

leaving a smooth surface sloping into the urethra; little or no hæmorrhage occurs.

Prostatectomy. — This operation may be performed through the perineum, by the supra-pubic route or by a combination of both. Perineal prostatectomy is sometimes indicated when the prostatic overgrowth is small or pedunculated. A median perineal incision is made, the projecting portion seized with the fingers or with a pair of forceps, caught with a wire or galvanic ecraseur and removed. This operation is objectionable as only a small portion of the hypertrophied mass can be removed, vesical projections being inaccessible. Nichol has modified and extended the scope of this operation by making a preliminary supra-pubic cystotomy for the purpose of pressing the prostate well down into the perineal opening, through which he shells the substance of the gland from its capsule by means of a finger or curette. His four reported cases were all successful.

Alexander has further modified the Nichol operation by opening the membranous urethra on a staff by the ordinary median perineal incision. After the staff is removed two fingers of the left hand are passed into the bladder from above, the prostate pressed down, and, with the forefinger of the right hand, the capsule is torn through at its apex close to the prostatic urethra, and the gland enucleated by blunt dissection. The lateral lobes are first removed, and, finally, the so-called third, if it is hypertrophied. Hæmorrhage is not severe. The wound is dressed with supra-pubic and perineal drainage. Six of his eight cases recovered.

In the supra-pubic method, after the patient is placed in the Trendelenburg position, the supra-pubic incision is made according to approved surgical methods. When there is a pedunculated middle lobe, the pedicle must be divided with curved scissors, but when sessile, the incapsulated tumors can be shelled out with the fingers or curette. If there is a collar-like projection about the entire vesical neck it can be divided into two lateral halves by the blade of the scissors introduced into the urethral orifice, cutting open first the portion above and then that on the floor of the urethra. The projecting mass is enucleated with the fingers and scissors. Hæmorrhage is

usually free and often alarming. It may be controlled by very hot water or packing, but, if severe, the Keyes's tampon, made of bichloride gauze, may be required. If employed it should always be removed in twenty-four hours. When a large amount of tissue has been removed, the supra-pubic opening should be closed by an immediate suture and the bladder drained by the perineal route.

Prostatotomy.—In the past, when mild methods failed, the only hope of making life endurable was permanent drainage by a median or lateral prostatotomy or supra-pubic cystotomy, which, while relieving the pain and retention, caused inconvenience and annoyance with offensiveness to mind and body, possibly resulting in urinary abscesses and sinuses; yet in selected cases there is no doubt that these operations are to be preferred to all other means.

Median prostatotomy with temporary drainage is the operation of choice for localized hypertrophy and contraction of a special fasciculus of the muscular wall of the vesical end of the prostatic urethra, the pronouced narrowing of the canal producing urinary obstruction and all the clinical symptoms except apparent increase in size of prostatic hypertrophy.

Emasculation.—In 1893, Dr. White, of Philadelphia, stated to the medical world that in his experience and from his studies the removal of the testicles would be followed by atrophy of the prostate with relief of the distressing symptoms caused by its overgrowth, and that the death rate was smaller than that from prostatotomy.

Since Dr. White suggested castration many successful cases have been reported, proving the operation to be as rational and justifiable as the removal of the ovaries in overgrowths of the uterus. When dogs are castrated the prostate atrophies. Autopsies have demonstrated prostatic atrophy on one side in monorchids, and complete atrophy in cryptorchids and those suffering from syphilitic sarcocele. Castration is comparatively painless, has a low mortality and is not followed by the serious complication of the supra- and sub-pubic operation, though there is sometimes a sacrifice of the sexual power.

Unilateral orchotomy sometimes acts very satisfactorily.

In one of the author's cases where the left testicle was removed, almost complete atrophy of the prostate of the corresponding side has followed, the opposite being somewhat overgrown; the urinary symptoms have all disappeared.

Vasectomy.—This operation possesses the advantage of causing no deformity, and is readily and quickly performed under cocaine anæsthesia. The most accessible point to attack the vas deferens is through the posterior surface of the scrotum. The vas deferens, being isolated from the surrounding veins, is held in place beneath the skin, and tightly stretched over the finger of an assistant. The skin is divided and the overlying fibrous tissue cut through, the vas separated and hooked out with a grooved director. Ligatures are applied directly above and below the director and the portion between removed, the cut ends cauterized with carbolic acid and dusted with aristol. The wound is closed with a stitch and dressed according to the usual surgical methods.

Even in the very old there is a great antipathy to the thought of the removal of the testicles. All men feel the humiliation of being unsexed, and would prefer a considerable amount of pain and discomfort rather than relief with such loss. The nerve and blood supply of the prostate and testicle are of different origin, and the relation of the testicle to the prostate is one of function only. Emasculation discontinues the functional life, and also eliminates from the system the power which the testes have of giving to man his virility, just as the ovaries give the feminine characteristics to the female; and if the testicles are removed early in life there ensues a complete change of character and development. This being the case, the resection of the vas deferens should give all the relief, while it possesses none of the disadvantages of castration.

Parone, from a series of experiments regarding the difference in effect upon the prostate, of castration and excision of the vas deferens, found that both caused atrophy of the prostate, and that the anatomical changes as revealed by the microscope differed in no appreciable manner.

Ligation of the vas deferens is undoubtedly the easiest operation proposed for the relief of hypertrophy of the pros-

tate and prostatectomy the most difficult, though the death rate in prostatectomy, castration, and vasectomy differ but little. After castration or vasectomy, many patients though they survive the operation develop nervous conditions, some becoming maniacal, others losing their mental balance or developing melancholia. In other words, castration and vasectomy, while very successful in selected cases, especially where there is some pathological lesion present in the testes, have not proved the panaceas which they were expected to be when the testes were apparently healthy, though new technique and more extensive knowledge and research may change the results.

In some of the more advanced cases of prostatic hypertrophy, permanent supra-pubic or perineal drainage may be required.

Ligation of the internal iliac arteries has been advocated and practiced by Bier, but his success has not been such as to induce others to take up his methods.

The latest remedy for the cure of prostatic hypertrophy is thyroid extract, and some apparent cures have been recorded.

Aloes soc., Argentum nit., Cimicifuga rac., Gelsemium, Graphites, Hepar sulph., Kali bich., Lycopodium, Sabal ser., Soladago virga-aurea and Thuja have been found useful in this disease, though the remedies required for the bladder complications will be more frequently indicated, as advised in the Author's Genito-Urinary and Veneral Diseases.

CHAPTER XII.

TUBERCULAR PROSTATITIS.

Etiology.—It may be of primary nature, though it is usually secondary to the involvement of adjacent or remote organs, and is always dependent upon the presence of tubercular bacilli and their ptomaines in the prostatic tissues. It must be remembered, however, that tubercular bacilli have been found in the apparently healthy prostate. It is essentially a disease of young manhood. Tubercular involvement is often preceded by gonorrhœa. Anything which causes prostatic congestion may be considered a predisposing cause in susceptible subjects.

Pathological Anatomy.—The gland is usually considerably enlarged by inflammatory congestion. The primary nodules are located in the vicinity of the tubules and by amalgamation and caseation large masses and cavities are formed, which may involve the lateral or middle lobes, or both. Abscesses develop slowly, and, gradually burrowing, may open into the urethra, rectum, perineum or hypogastrium, forming numerous fistulous tracts. Occasionally the tubercular mass becomes calcified and the disease is arrested.

Clinical History.—This has been little studied or understood. Thompson says it has no characteristic clinical history. It is a fact that many suffering from this disease present no symptoms or so few as not to attract attention. When the tubercular deposit is situated near the prostatic urethra, the manifestations are practically those of a catarrhal prostatitis, *i. e.*, increased frequency of micturition, sharp burning pain or a sense of weight and fulness in the perineum, back and glans penis. Generally there is an accompanying muco-purulent discharge from the urethra.

Diagnosis.—Tubercular prostatitis may be differentiated from the catarrhal variety by the absence of mental depres-

sion, and by its developing in those who are greatly anæmic, or who are already the victims of tuberculosis in other organs. Hæmaturia is often present, and, from the clinical history, stone in the bladder might be suspected, but with the Thompson sound the diagnosis can readily be made. If it was not for the presence of tubucular bacilli in the urethral discharge, or tubercular deposits in other portions of the body, the tumor might also be mistaken for a malignant growth. The age of the patient should materially assist in differentiating it from hypertrophy of the prostate. In the early stage the tubercular nodules are usually more circumscribed than in hypertrophy of the prostate; as the disease progresses, the nodulations soften and fluctuation may be present. The infiltration sometimes becomes extensive and diffuse, obscuring almost, or entirely, the outlines of the prostate and surrounding parts.

Prognosis.—Recovery is possible, though rare.

Treatment.—The general health of the patient must receive careful attention, hygienic, climatic and medicinal, such as would be indicated for tuberculosis in other parts of the body. When primary tubercular prostatitis is diagnosed, parenchymatous injections of ten to fifteen drops of a 10 per cent. iodoform-glycerine emulsion, introduced by a long needle through the perineum every third to fifth day, have in some cases been apparently of great benefit. When the disease is located upon or near the prostatic urethra, urethral instillations of the Bichloride of Mercury, 1 to 6,000, have been serviceable. Silver solutions should never be used in this variety of prostatic disease, as they cause exacerbations and increased suffering. Local instrumentation, as a rule, is harmful. When abscesses develop they should be incised through the perineum, curetted, and the cavity packed with iodoform gauze. For special therapy see Catarrhal Prostatitis.

CHAPTER XIII.

MALIGNANT GROWTHS, CYSTS, CALCULI, ETC., OF THE PROSTATE.

Malignant Growths of the Prostate.—When occurring as primary lesions, they usually appear before the tenth or after the fiftieth year. Sarcoma may occur at any period of life, but more than one-half of the cases develop between the first and eighth year. Carcinoma is a rare affection. In 1,904 cases reported by Tanchou, only five were primarily in the prostate. Malignant growths show a characteristic tendency to rapidly infiltrate the surrounding parts, and the deposits in the neighboring glands by pressure upon the iliac vessels may produce œdema of the lower limbs and thrombosis. The enlargement of the prostate is always hard and at first its outline either irregular or nodulated. Later softening may take place in spots.

Clinical History.—In the early period of this disease the symptoms may be only those of urinary obstruction located in the prostatic urethra, *i. e.*, painful and difficult micturition accompanied with hæmaturia, which may be profuse, scanty, intermittent, but generally terminal. Complete retention of the urine may rapidly develop, with rectal tenesmus, pain in the scrotum, along the inner side of the thighs and in the hypogastric region. The urine should always be examined in suspected cases for fragments of tumors, which may assist in making the diagnosis.

Diagnosis.—In the early stages, when the growth is still confined within the capsule of the prostate, it may be impossible to differentiate it from prostatic hypertrophy. But its rapid increase in size, and the early invasion of neighboring organs and glands, with the resulting cachexia, will soon make the diagnosis clear.

Prognosis.—In children death occurs in three to four and in adults in one to four years.

Treatment.—This is purely palliative. Retention of urine must be relieved by catheterization, the accompanying cystitis possibly requiring an appropriate bladder douche. If hæmorrhage is severe or the cystitis very troublesome, suprapubic drainage, etc., will be indicated. Attempts have been made to remove the prostate when invaded by primary malignant disease; the results, however, have been very unsatisfactory. Much relief is often given by the administration of some of the remedies symptomatically indicated.

Cysts of the Prostate.—They may be caused by retention of fluids or obstruction of a prostatic tubule or be of hydatid origin, the symptoms depending upon the size of the cyst and its interference with micturition or defecation. The diagnosis depends upon the detection of a non-inflammatory fluctuating tumor connected with the prostate. The cysts should be evacuated and drained through the perineum.

Prostatic Calculi are of two kinds, and vary in size from a microscopic point to a filbert. They may be single or multiple. The multiple variety, the most common, originates within the prostate, the calculi exhibiting granular nuclei, and are made up of degenerated epithelial cells and inspissated mucus, developed in concentrated layers, and are known as corpora amylacea. When they are situated deep in the organ, they may occasion no symptoms, but when near the urethra, especially in the region of the verumontanum, they may, by ulceration, open into it; here the urine will assist in their rapid growth, and in producing ulceration. Prostatic calculi may also be of kidney or bladder origin, being brought down in the urinary stream and lodging in the prostatic sinus, finally become imbedded in the organ.

Clinical Symptoms.—When situated in the prostatic urethra, calculi may cause frequent and painful micturition with possibly retention of urine. The diagnosis depends upon the grating sensation imparted to the fingers on passing a steel sound over them. They may be discovered by the urethroscope or by digital examination through the rectum.

Treatment.—The calculi may be removed with the

urethral forceps through the endoscope, though, as a rule, a perineal urethrotomy will give the most satisfactory results.

Polyps of the prostatic urethra are of rare occurrence, though they sometimes exist, causing hæmorrhage from the urethra, urinary obstruction, frequent and painful micturition, and difficulty in catheterization.

Prostatic Injuries are rare. When they occur they should be treated surgically as the individual case may indicate.

CHAPTER XIV.

PRIAPISM.

This deviation from a normal sexual condition may be the result of traumatism of the penis, or the consequence of injury or disease in various parts of the nervous system. Occasionally, it occurs without apparent reason, or as a concomitant of some long and exhausting general illness; it is sometimes of leucæmic origin. The traumatic variety is the most common, originating in an injury to the roots of the corpora cavernosa, with consequent extravasation of blood into their meshes. It is generally the result of violent or excessive sensual congress while intoxicated. At one time it was thought to be of alcoholic origin.

Priapism usually develops rapidly. Intercourse gives no relief, and ejaculation often is painful. Micturition may be normal, or frequent and painful. As this condition develops the penis becomes tense, hard, frequently cartilaginous, and exceedingly sensitive to the touch, particularly over the roots of the corpora cavernosa and in the region of the perineal muscles. There are associated pains in the back and along the course of the spermatic cord. Priapism persists often from two weeks to two months; with rare exceptions longer. Anxiety and apprehension are generally present. The position in bed is characteristic, *i. e.*, the patient reclines on his back with the limbs drawn up to protect the organs from any jar or sudden pressure; but even in this position the bed clothes may produce pain, which at times is agonizing, the parts being so extremely sensitive and painful. Between a case of this character and one of mild degree there are all gradations.

Treatment.—Hot fomentations and possibly incision into the injured or hæmorrhagic area, when of traumatic origin, may be required to relieve arterial tension, with Aconite nap., Arnica mont., Belladonna, Cactus grand., Camphor, Canthar-

ides, Digitalis, Eryngium, Euphorbium, Gnaphalium, Graphites, Hyoscyamus, Iridium, Mercurius corr., Mygale, Natrum carb., Platina, Phosphorus, Phosphoric acid, or Staphysagria as symptomatically indicated.

CHAPTER XV.

PSYCHICAL IMPOTENCE.

This is the variety of impotence in which the sexual organs are capable of full erection when the patient is alone, excited by lascivious reading or thoughts, by stimulation of the erection centres of the nerve mass, or a full bladder in the morning, yet when coitus is attempted under certain mental impressions originating within or conveyed to the brain by the special senses these impressions inhibit the action of the sexual centres, diminishing or suppressing for the time being the power of erection and ejaculation. There is sometimes a diminution or an absence of sexual desire with great shrinking of the organs.

There are few men who have not been at some period in their life transitorily in this state from excessive mental application, business worry, prolonged bodily exercise, etc., but with the subsidence of the cause the condition has righted itself.

This form of impotence is not infrequent in recent widowerhood, when, for a time, all sexual desire and interest in the opposite sex is lost. Young men and frequently those advanced in years, who have led a chaste and moral life, when first attempting intercourse, from overanxiety, nervousness, timidity, etc., find the erection fails when most desired. Those who have indulged excessively in masturbation or sexual excesses, particularly when they have been led astray by vicious literature or ill-advised counsel, are often the victims of this condition. Nervousness attending marriage, with fear of inability to perform satisfactorily the part of the husband, may cause temporary impotence. Young men who live a rather rapid life, yet from fear of disease have shunned intercourse with women of the town, but who at some unguarded moment, when semi-intoxicated, attempt the act and

are unsuccessful, owing to the inhibitory action of the alcohol ingested, the fear of the consequences or the surroundings, suffer a strong mental impression through this physical failure, *i. e.*, a complete loss of confidence in their sexual power which causes future incapacity even under favorable conditions.

Psychical impotence may also be produced by the environments, *i. e.*, noises, peculiar odors, fear of discovery, mental thoughts, moral or otherwise, repugnance, fear of contagion, pregnancy, the general dress and physique of the pardner, her general hygiene, condition of the genitalia, etc.

In the relative variety of psychical impotence, intercourse can only be accomplished satisfactorily with a woman of certain stature, a blonde, a brunette, one with auburn hair, or when she is dressed in a special manner. Again, intercourse may only be successful when the mind is concentrated upon some absent but pleasing consort. In others, while the erection may be perfect, the satisfaction is inadequate due frequently to the want of real reciprocity on the part of the female, who indulges in intercourse for financial reasons and poorly simulates emotions which are not experienced. The want of this reciprocity on the part of the wife sometimes produces a seeming impotence, which under changed conditions entirely disappears. Perfect intercourse is only possible under the normal conditions of mutual love and esteem.

Psychical impotence is sometimes a cause of much worry and anxiety to the unmarried, but a congenial and moral marriage generally establishes a healthy relationship. Of course, at first there may be an occasional failure, but the final outcome is usually satisfactory.

Treatment.—These cases require careful examination, and the patients should receive a plain statement of their condition, though great tact must be used and their minds strongly impressed with hopefulness of the results. They cannot be dismissed with a laugh in an attempt to lightly cast aside their preconceived opinions. The nervous impression is usually so completely fixed that they will not accept a favorable opinion of their sexual status and future health unless, to a certain extent, it agrees with their conceptions

and is based upon a most thorough and searching examination, which must include not only a careful local examination of the parts by all approved methods but a thorough general examination as well. The general examination must include the past history, diet, sleep, habits, recreation, hygiene, amount of exercise taken, condition of the bowels and urine, the use of drugs, tobacco, alcohol, etc. All unnatural and unhygienic acts must be investigated, proper advice given and appropriate measures instituted. Fresh air and outdoor exercise are to be commended. Early marriage may be advised, but fornication never.

In the psychical form of impotence produced by the mental frigidity or indifference of the wives with consequent flabby condition of the vagina and vulva with the absence of encouraging reciprocity—which stimulation is of the utmost importance in satisfactory intercourse—the husband should be encouraged, suitably treated and morally advised.

The genitalia must always be carefully examined, and if local lesions are found approved treatment instituted, an extra stimulating diet advised, including oysters, clams, eggs, fish, red meat, celery, asparagus, tomatoes, etc., with a little red wine at lunch and dinner. Tobacco should be avoided. With many this treatment is successful. A strong and frequently successful stimulant to sexual vigor is a strict command to avoid sexual thoughts or intercourse under any and all circumstances for a certain stated period. While under treatment for psychical impotence no trials of power should be allowed to interrogate its success. When intercourse is first attempted, advantage should be taken of the morning erection, the act being precipitated without delay or preparation. A glass of wine is sometimes a successful stimulant.

In some cases Scheinkman's Potentor will be useful. It consists of two soft, and at the same time resistant longitudinal plates, concavo-convex in section, united anteriorly so as to form an elastic collar-like opening, at the circumference of which is attached a highly elastic rubber tubal sheath, provided with a ring at its free extremity to facilitate the rolling in of the sheath when in the process of application. The object of this sheath is to keep the two plates *in situ* when inclosing

the flabby penis with the glans protruding through the anterior opening, and also to give it a smooth round contour, thus maintaining the organ in such a state as to allow of its introduction into the vagina, which would otherwise be impossible of accomplishment. When the impulse becomes sufficient to counteract any psychical or imaginary drawback the instrument can be instantly removed and natural coitus continued. In obstinate cases, however, the experiment may have to be repeated several times before unaided natural intercourse can be established. To apply the instrument, grasp the ring between the thumbs, forefingers, and middle fingers of both hands on two opposite sides and roll it inwardly up to the anterior opening of the longitudinal plates, then grasping a plate in each hand enlarge the opening by stretching them apart, and with both thumbs, push the head of the penis through the opening, steady the glans with the thumb and forefinger of one hand and with the other roll the ring over the plates, inclosing snugly the body of the penis and the plates. The instrument is removed painlessly by pulling off the sheath.

The administration of Ignatia or Anacardium, depending upon the mental symptoms, is often efficacious, though all cases must be carefully individualized and the remedy prescribed according to the totality of symptoms.

CHAPTER XVI.

SYMPTOMATIC IMPOTENCE.

This form of sexual impairment may be the result of general illness or symptomatic of some cerebro-spinal disease or defect, occurring even when the sexual organs are free from pathological lesions. It may be a reflex of a local disease of the testes, or the effect of certain drugs ingested. Anything which lowers the general tone and vitality of the body always reduces sexual power. In some of the general fevers, the loss of sexual power is as much the result of toxic conditions of the blood and its poisonous effect upon the nerve centres as the anæmic state and consequent poor nutritive power. Digestive disturbances may produce symptomatic associated sexual weakness. In diabetes, the loss of sexual power and desire is pronounced. Sexual excitement, produced either by organic or functional nerve lesions, is often followed by profound and continued impotence. The testes in health are supposed, in some way, to influence the degree of man's virility, and, when diseased, to weaken the generative powers; in what manner it is not known, though it is probably through the sympathetic nerves. Through this we explain many of the symptoms which are present in atrophy of the testes from a varicocele, as well as the mental depression and unbalancing of the mind following double castration or vasectomy when the testes are free from disease. Anorchids are impotent; cryptorchids are generally potent, though usually sterile. The removal of the testes may cause impotence, though it is frequently many years in becoming complete. Tubercular, syphilitic and other tumors of the testes are often associated with impotence.

The continued ingestion of certain drugs, *i. e.*, alcohol, opium and its alkaloids, iodine, iodide of potash, lead, camphor turpentine, antimony, bisulphide of carbon, carbonic acid,

etc., has undoubtedly a symptomatic influence in inhibiting the sexual power and desire The use of tobacco, especially cigarettes, particularly when the smoke is inhaled, as well as the excessive use of coffee and absinthe, often produce impotence, all varying with the individual susceptibility, though one or two cups of coffee daily, in those who have no special idiosyncrasy, may act as a sexual stimulant.

Treatment.—This depends upon the cause, the eradication or removal of which is usually followed by a disappearance of the symptomatic condition.

CHAPTER XVII.

ORGANIC IMPOTENCE.

This variety of impotence may be partial, complete, congenital or acquired. It is due to the absence, imperfect development, disease or traumatism of some portion of the male genitalia. These conditions, however, do not necessarily cause sterility. Congenital absence of the penis is of rare occurrence. In the few reported cases there were other associated anomalies of development. In children, penes of rudimentary size are occasionally met with, though, as a rule, in the process of development they become of sufficient calibre to make satisfactory intromission, and regular and naturally conducted intercourse generally causes considerable increase in the size of the organ. The daily use of a vacuum tube has produced seeming development of an undersized penis. Phimotic conditions frequently stunt the growth of the glans and body of the penis, but a proper circumcision is usually followed by a rapid development of the organ. Acquired absence of the penis from surgical removal, traumatism, or the outcome of destructive ulceration and accidental or designed strangulation, is sometimes the cause of this condition. A seeming absence of the penis, rendering intromission impossible, may be produced by a large overhanging abdomen, a large scrotal hernia, hydrocele, hæmatocele, varicocele or scrotal elephantiasis.

Congenital over-development of the penis may make intercourse absolutely impossible. This, however, is exceedingly uncommon. The hard œdema of the prepuce or glans penis following inflammatory phimosis, chancroid or chancre may make intromission difficult or even prevent coition, and will require surgical methods of relief adopted to the individual cases. Elephantiasis of the penis, congenital aneurismal dilatation of the corpora cavernosa, or that acquired from

violence, as well as varix of the dorsal veins of the penis, may prevent intercourse. A double penis, a congenital union of the penis to the scrotum, or a stunted, fibrinous frenum may cause organic impotency, for the relief of which surgical methods are often indicated. Those afflicted with malformations of the genital organs, who have reached adult life, may be potent or impotent, depending upon the character of their anomalies. Incomplete organic impotence frequently results from disease or traumatism of the part, the distortion being sufficient to prevent intromission only to a partial degree, as sometimes occurs after phagedena, syphilitic ulcerations, serpiginous chancroidal ulcerations, gangrene of the skin and underlying parts, as well as extensive injury or burns, which in healing distort the penis, preventing expansion of the erectile tissues.

If the prepuce is long and the preputial opening narrow, smegma may accumulate and harden behind the corona glandis, interfering with, if not preventing, copulation. In China preputial calculi are common, distorting the parts and making sexual intercourse impossible. In these conditions a proper circumcision is always indicated.

Vegetations on the glans penis occasionally develop to great size, and when large may check intromission. They are the result of uncleanliness or of a specific dyscrasia. These papillary out-growths, when large and sessile, should be removed with the curette; if pedunculated, with the curved scissors, the base cauterized and the wound treated antiseptically.

If the growths are broad and flat, after the application of a 10 per cent. solution of cocaine and anæsthesia is produced, cauterization with Pyrozone 25 per cent., nitric or carbolic acid, followed by the usual antiseptic dressings, gives very satisfactory results.

Horny growths sometimes develop, barring all intercourse. They are generally preceded by vegetations upon the glans penis. Their surgical removal is always indicated, as they are apt to recur and frequently pass into cancerous conditions.

Cancer of the male organs of generation may not at first cause impotence, but as the malignant process progresses intercourse is proportionately impeded, and in time it becomes

impossible. Carcinoma and epithelioma of the penis often necessitate surgical relief, and amputation is not infrequently advisable.

Fibroid sclerosis of the penis is fortunately not common; it causes impotence in proportion to its degree of development. The disease has been described by the older genito-urinary surgeons as a chronic circumscribed inflammation of the corpora cavernosa. Its etiology is unknown. It has been thought to be of a gouty nature, a concomitant of diabetes, etc. It frequently appears in the strong and vigorous, and has developed as the apparent consequence of injury to the penis. Men of about forty are the usual victims, although those younger in years are sometimes attacked, as well as those who are more mature. Its pathology resembles that of keloid, presenting a fibrous network of scar-like tissues in which are imbeded a few blood vessels with islets of embryonic cells, giving evidence of fibrous transformation.

The lesion is usually situated on the dorsal side of the corpora cavernosa and consists of thin plates of firm, hard, fibrous tissue, one or two lines in thickness, and placed like a saddle, these saddle-like plates generally being firmly connected in the median line, the sclerosis often extending downward into the trabeculæ of the corpora. There may be two or more of these saddles situated along the dorsum of the penis, one above the other. The plates may be connected in the median line by a soft elastic layer, or they may be placed laterally, and occasionally in the corpus spongiosum. Fibroid sclerosis of the penis develops very slowly, extending antero-posteriorly more rapidly than laterally; sometimes the growth remains stationary for a considerable period. When the penis is relaxed the sclerotic plate is usually painless, though it may be a little sensitive when the organ is erect. The lesion generally appears as a small ovoid plate, the first symptoms noticed being a tendency of the penis to curve upwards or sideways during erection, and any attempt to straighten the erected organ causes pain. In some cases this special symptom of pain precedes for a long time any physical evidence of local sclerosis. As the new tissue de-

velops the erections are proportionately curtailed. Sometimes the penis in erection is turned or twisted almost to a right angle. When the trabeculæ become involved, that portion of the penis beyond the diseased part will not become congested or distended when erection is desired, but remains like a doughy or flexible mass, which largely, if not completely, prevents intromission.

Usually under any and all forms of treatment these cases grow gradually worse, though the symptomatic drug may so render the system immune that the growth may cease to increase. Lappa alba is often the indicated remedy.

Ossification of the penis is a disease of advancing years. It is of rare occurrence, and consists in the pathological deposit of bone in the corpora cavernosa and the septum pectiniforme, the change proceeding very slowly. Clinically the first symptom is a curvature of the penis during erection with pain during coitus. As the deposit increases the organ becomes more distorted, painful during erection and sensitive at all times. Surgical treatment gives the only relief.

Sometimes in the tertiary and less frequently in the secondary period of syphilis the penis is invaded by a localized infiltration or gummatous deposit, producing impotence. Frequently the deposit is confined to the corpora cavernosa, where it forms a sharply defined nodule, or to the corpus spongiosum, where it may completely encircle the urethra and causes curvature, etc. Under anti-syphilitic treatment, absorption may occur and the parts return to their normal usefulness. If neglected, the syphilitic gumma will soften and degenerate into an abscess terminating in loss of tissue with distortion of the penis, etc.

Fracture of the penis, though rare, may happen, causing temporary organic impotence. It has been produced by violence during intercourse; by a blow—as formerly advised in chordee—or by suddenly turning upon the erect penis at night in bed, etc. Pain and distension of the organ with extravasated blood constitute the early symptoms. If immediate attention is not given, the effused blood may by pressure from without, cause temporary occlusion of the urethra. If fracture

is complete, the separated parts gave a distinct fremitus when the ends are rubbed together, and the evidence of a sulcus will appear when the organ is extended. Fractures of the cavernous bodies generally unite, and are followed by perfect return of power in the organ, though in other cases, with the same treatment, the distal end of the organ may always remain ununited and flaccid.

The treatment for partial fracture is enforced recumbent position, catheterization, cooling applications and lotions. In the more severe cases free incision of the distended parts may be necessary, with continued use of the catheter; later steel sounds and possibly a urethrotomy.

In addition to the above causes of organic impotence, there are many degrees of curvature of the penis which may be congenital, impeding perfect intercourse, due to a short frenum or corpora cavernosa, but more frequently they are the result of injury or disease of the corpora cavernosa, a deposit in the walls of the corpus spongiosum ——, a short frenum, the result of removal of too much tissue in circumcision, an over-dilatation of the urethra or internal urethrotomy, or an inflammatory phimosis or paraphimosis.

CHAPTER XVIII.

DERANGEMENTS OF THE SEXUAL FUNCTIONS OF MEN.

Etiology.—The primary causes of sexual derangements of men are to a large degree congenital or acquired deviations of the genitalia from the normal standard. A narrow or adherent prepuce; a frenum, which is shortened or fibrinous, causing irritation of the penis in the flaccid state and deformity during erection; a contracted meatus, giving rise to a water pound at each micturition, with resulting chronic hyperæmia of the posterior urethra; congenital or acquired strictures in the bulbous or prostatic urethra, with accompanying pronounced and distressing reflex symptoms, mental depression, etc.; inflammation or other pathological conditions in the urethra, prostate, seminal vesicles, ampullations of Henel, the testes; all the etiological factors of ampullitis, vesiculitis or prostatitis; lesions in neighboring or remote organs, may one and all, through reflex action, have a potent influence in the causation of sexual weakness.

Clinical History.—The different symptoms so commonly designated as distinct diseases of function of the sexual organs usually represent only different stages of a local pathological lesion, except when they appear as symptomatic reflexes of a nerve involvement or of a systemic disease, which requires general and not local consideration. In the early history of these disorders, the nervous reflexes are usually not pronounced; occasionally they soon appear. As the local lesions become more defined the reflexes become more prominent, though, in some cases, the mental conditions are out of all proportion to the local cause.

Sexual Erethism.—Among the first symptoms of commencing sexual disorders is an irritable state of the genital organs, due to a hyperæmic condition of the prostatic urethra,

the prostate, seminal vesicles or the ampullations, revealed in erections from trifling causes, or without apparent reason. Sometimes there are persistent violent erections, which frequently are not relieved by intercourse. This condition is usually transitory in character. It is not to be associated with priapism resulting from injury of the parts, disease of the nervous system, leucæmia or any prolonged illness. When sexual erethism appears as a symptom of a chronic local lesion of the genital organs, it may pass unnoticed, or, if observed, is sometimes considered to be an indication of renewed animal vitality, and, if the morbid desire is excessively gratified in this condition, permanent damage frequently results. In many of the acute genito-urinary diseases, irritability of the parts and distressing erections constitute the chief, if not the most painful, symptoms.

In this condition the following drugs, as symptomatically indicated, will be beneficial: Ambra, Anacardium, Arnica mont., Belladonna, Cactus grand., Calcarea carb., Camphor, Cantharides, Capsicum ani., Carboneum sulph., Digitalis, Equisetum, Eryngium, Gnaphalium, Graphites, Hyoscyamus, Ignatia, Iodium, Jatropha, Kali brom., Lachesis, Ledum pal., Magnesia mur., Mercurius, Mezereum, Mygale, Natrum carb., Nux vom, Osmium, Paris quad., Phosphorus, Phosphoric. acid, Picric. acid, Platina, Secale cor., Sepia, Silicia, Stannum, Staphysagria and Ustilago madis.

Impotence may be the first symptom noticed indicating the presence of sexual impairment, as manifested in feeble erections, or strong sexual desire without erection, shrinking and retraction of the parts sometimes occurring even when erection is most desired, possibly accompanied with a urethral discharge, without erotic sensation. Erections, while apparently perfect or excessive, are somewhat unreliable. Sexual desire may be increased with emissions which occur too early during sexual congress and which are often followed by an immediate subsidence of the erection. As the impotence advances and becomes more chronic, erectile power and sexual desire are lost, with a corresponding shrinkage and a general anæsthetic condition of the genital organs.

Impotence is frequently traceable to a hyperæmic or catar-

rhal condition in the bulbous or prostatic urethra, the verumontanum, the caput ginglinus, the prostate, the seminal vesicles or the ampullations of Henel. One or all of these parts may be involved. This variety of impotence has two stages, the hyperæmic or irritable and the anæsthetic. The first or irritable stage is caused by a hyperæmic condition of some part of the genital apparatus. If the organs are thoroughly examined the integument covering the penis will be found to be normal in appearance and sensation, the lips of the meatus slightly everted, the mucous membrane of the urethra hyperæmic and over-sensitive to instrumentation, especially in the prostatic portion. The efferent nerves, so abundant in this part of the urethral canal, are hypersensitive, owing to the local congestion keeping the lumbar centers in a state of constant irritation, which finally results in their exhaustion. It must be remembered, however, that the genito-spinal centers may be inhibited from other causes.

In the second or anæsthetic variety there is usually an infiltration of inflammatory products in and around the verumontanum with other structural changes in the genital organs, the genitalia presenting a shrunken appearance. The sensibility of the urethra is diminished, frequently almost absent, especially in the prostatic portion, the urethral mucous membrane pale and anæmic, erections imperfect, finally disappearing and emissions occur without accompanying pleasurable sensations. The seminal fluid after attempted intercourse may dribble or drop from the flaccid organ. Impotence usually appears slowly; it may be noticed only after forced abstinence for any reason.

The remedies most frequently indicated are: Agaricus, Agnus cast., Argentum nit., Baryta carb., Berberis vulg., Borax, Caladium, Calcarea carb., Cannabis Ind., Cannabis sat., Carboneum sulph., Carbo veg., Causticum, China off., Chlorine, Conium mac., Cubeba, Cuprum ars., Dioscorea, Euphorbium, Gelsemium, Graphites, Hydrocotyle, Ignatia, Kali carb., Kali iod., Lachesis, Lycopodium, Magnesia carb., Mercurius sol., Mercurius corr., Naja, Natrum mur., Nitric acid, Nuphar lut., Nux vom., Opium, Osmium, Petroleum, Phosphoric acid., Phosphorus, Plumbum, Sabal ser., Selenium, Sulphur, Sumbul and Tribulus ter.

Pollutions.—The pathological must always be differentiated from the physiological emission. The latter, resulting from continued continence, may occur as often as once a week, or in cycles of two or three successive nights, then subside for one or many months, depending upon environment, food, etc. It is not followed by unpleasant manifestations, but usually by a feeling of relief, as it frees the system of a secretion, which, if long retained in the seminal vesicles, may cause disease and nervous reflexes. When of pathological origin, the succeeding day is characterized by slight, transitory headache, backache, mental depression, etc. At first these symptoms pass off quickly, but may finally continue all day. When the local lesions become more deeply seated, diurnal emissions occur, accompanied by some degree of impotence. The slightest mental or physical impulse may be sufficient to produce an ejaculation. These pollutions are not usually accompanied with pleasurable sensations and often occur without erection. They are frequently produced by the presence or thought of a woman, her picture, the jarring of a horse-car, the brushing of the penis against the trousers, the introduction of urethral instruments, retraction of the prepuce, etc.; physical fatigue, overlifting, jumping, etc., may also be sufficient.

For this symptomatic condition the following remedies will be of great service: Alumina, Anacardium, Argentum nit., Ammonium nit., Bromium, Caladium, Calcarea acet., Calcarea carb., Camphora, China off., Cobalt, Conium, Digitalis, Dioscorea, Gelsemium, Graphites, Hamamelis, Kali brom., Kali carb., Lachesis, Lycopodium, Magnesia carb., Muriatic acid, Naja, Natrum carb., Natrum mur., Natrum phos., Nuphar lut., Nux vom., Plumbum, Phosphorus, Phosphoric acid, Pulsatilla, Rana bufo, Staphysagria, Sulphur, Thuja occ., Tribulus ter. and Zincum.

Urethral Discharges.—In the early stage of sexual disorders there is often over-activity of the peri-urethral and Cowper's glands, as well as those in the seminal vesicles and prostate, producing an over-secretion, often improperly designated as spermatorrhœa. In the anæsthetic stage the secretions are usually diminished.

The discharge may be quite profuse and continuous, at frequent intervals during the day a drop may be noticed at the meatus, or there may be simply an agglutination of the lips of the meatus in the morning. It may appear only during sexual excitement, after urination, after a constipated or diarrhœic stool, or perhaps be observed only as a few shreds floating in the urine. The discharge is frequently the cause of great mental anguish and despair, the ideas of the layman's spermatorrhœa being sometimes so deeply seated that it is almost impossible to dislodge them. It is frequently accompanied by a sensation as though something was trickling down the urethra, this sensation sometimes being present when there is no discharge. An uneasy, burning sensation may be noticed in the fossa navicularis or in the prostatic urethra, with tenderness in the perineum on deep pressure. Urination is often followed by straining and the discharge of a drop of blood. Reflex pain in the rectum, thighs, hypogastric region, aggravated by standing, motion, etc., is common. The origin and import of the discharge varies with the local condition causing the sexual weakness, and various names, dependent upon the locality involved, have been applied to it, *i. e.*, urethrorrhœa ex-libidine, urethral blenorrhagia, prostatorrhœa, spermatorrhœa, urethral tuberculosis, etc.

Urethrorrhœa ex-libidine is frequently observed. The discharge is the result of over-activity of the urethral glands, and often causes much mental worry. It is frequently produced by the pernicious habit of stripping the penis to find the morning drop. It is also the consequence of chronic hyperæmia or over-activity of the peri-urethral glands which follows urethritis, or excessive and continued sexual trifling without gratification. It is often observed in young men under sexual excitement, especially during long and protracted courtship. In itself it is harmless. Microscopically the discharge is composed of flat cylindrical epithelial cells, shreds of mucus and an occasional crystal of the phosphate of magnesia or lime, usually of the coffin-shaped variety. The discharge may be quite profuse.

While removal of the cause and the discontinuance of unnatural acts are of the greatest importance, much assistance

and a rapid cure will be obtained from the administration of the indicated remedy: Aconite nap., Calcarea carb., Cannabis Ind., Cannabis sat., Cubeba, Camphora, Capsicum ani., Eryngium, Graphites, Hepar sulph. c., Iodium, Magnesia carb., Nitric acid, Nux vom., Phosphoric acid, Pulsatilla, Sabal ser., Sulphur, Thuja occ., etc.

Urethral blenorrhœa is an indication of a chronic bulbous or prostatic urethritis or urethral stricture. It is a very common associate symptom in sexual disorders. The discharge may be profuse or appear only as a few shreds in the urine. Microscopically it is composed of pus corpuscles and urethral epithelium held together by mucus, fibrin, etc., with an occasional nidus of gonoccocci, urethral diplococci, etc. When the urethra is examined with the electric urethroscope, the mucous membrane presents a deep red or purple color, and it is thickened to a varying degree. The inflammatory change may be confined to the mucous membrane, presenting a circular, red, thickened spot, or the whole membrane may be granular and resemble a section of beefsteak cut crossways. A urethral discharge associated with sexual weakness is often due to local disease in the bulbous portion of the urethra. It is almost always the result of a gonorrhœal invasion of recent or remote origin, which has induced a profuse, round-celled infiltration, of the urethral wall which often completely fills the space between the vessels and the muscular and elastic tissues. In a variable length of time this round-celled growth become fibrous, resulting in contraction of the canal as well as thickening of the tissues involved. This growth is often abundant in the bulbous portion of the urethra, due to the fact that the canal is not surrounded by a fibrous capsule and to its spongy walls. As it develops it takes the place of, or drives out, the vascular and erectile tissues, the healthy tissue being transformed into a firm, hard, homogeneous white structure, termed a stricture. When the prostatic urethra is invaded by a chronic catarrh there is a round-celled infiltration with subsequent fibrous changes in the sub-mucous tissue, the surface of the mucous membrane becoming thickened and granular.

Urethral blenorrhœa may depend upon a chronic hyper-

æmia of the prostatic urethra, due to a contracted meatus, or to a congenital stricture of the pendulous urethra, with its subsequent water pound of the urethra behind the stricture during urination, finally terminating in a localized catarrhal inflammation of the verumontanum and the caput ginglinus with associated inflammation of the lobules of the prostate.

The remedies found beneficial in gleety discharges in general will here be of great benefit. The following are often indicated: Agnus cast., Argentum nit., Calcarea carb., Cannabis sat., Clematis erect., Cubeba, Cuprum acet., Euphorbium, Graphites, Gelsemium, Iodium, Lycopodium, Mercurius corr., Nitric acid, Natrum mur., Natrum carb., Nux vom., Petroselinum, Pulsatilla, Sabadilla, Sabal ser., Selenium, Silicea, Sulphur, Thuja occ., etc.

Prostatorrhœa.—This muco-purulent or thin, glairy discharge, of milky or white of egg appearance, occasionally bloody, depends upon disease of the prostate. Microscopically, it abounds in mucus, granular phosphates, and not infrequently it contains triple phosphates, oxalate of lime, a few pus corpuscles, some degenerated cylindrical epithelial cells and, occasionally, a few blood corpuscles. Böttcher's sperm crystals are readily formed by adding to the prostatic fluid a one per cent. solution of ammonium phosphate, allowing the mixture to dry on a glass slide, when they can be microscopically examined. This discharge is the product of a catarrhal inflammation of one or many of the lobules composing the lobe of the prostate, producing in the organ a general nodular enlargement. The disease may be confined to one side, in which case, as in seminal vesiculitis, the left is the one usually affected. When catarrhal prostatitis exists, if the finger is introduced into the rectum and slight massage applied to the prostate a thin, clear, viscid, milky fluid (prostatic fluid) will be expelled into the urethra, and may even flow from the meatus. If the ejaculatory ducts are invaded by this catarrhal process, they may become patulous and allow some of the spermatozoa and the surrounding vesicular secretion to escape and mix with the prostatic fluid.

In health the prostate secretes phosphates in abundance, and in disease frequently in excess, sometimes in quantity sufficient to produce the classical urinary evidence of phospha-

turia. In health the phosphates are necessary to the vitalization of the spermatozoa in the spermatic fluid. In chronic catarrhal prostatitis as much as 120 grains by weight have been easily massaged from the organ. This prostatic phosphatic discharge is frequently the cause of the cloudy, cider-like urine often noticed in sexual disorders. If the turbid urine be placed in a glass receptacle a thick flocculent deposit, which may be mistaken for pus or mucus, will soon settle and may cause the unwarranted diagnosis of cystitis, pyelitis, etc. When a portion of such cider-like urine is boiled, the cloudiness if due to urates will immediately clear; if to phosphates, albumen or carbonates it will increase in density; if a drop or two of acetic acid is then added, the dimness, if caused by phosphates, will vanish; if to carbonates, the urine will clear, accompanied with an evolution of gas, and if albumen is present it will remain unchanged. If the cloudiness is due to bacteria or catarrhal secretions boiling and acetic acid will cause no reaction.

Numerous remedies may be indicated in this condition. The following have been found beneficial as symptomatically indicated: Agnus cast., Ambra gris., Arnica mont., Argentum nit., Calcarea carb., Cannabis Ind., Cannabis sat., Causticum, Conium, Cubeba, Cuprum acet., Eryngium, Euphorbium, Graphites, Hepar sulph. c., Iodium, Lachesis, Lycopodium, Magnesia carb., Mercurius, Mezereum, Muriatic acid, Natrum carb., Natrum mur., Nitric acid, Nux vom., Phosphorus, Phosphoric acid, Phytolacca, Pulsatilla, Sabadilla, Sabal ser., Sarsaparilla, Selenium, Sepia, Silicea, Sulphur, Thuja occ., Ustillago maidis, and Zincum.

Spermatorrhœa.—Taylor has ably summed up this condition in three classes: "First, young men who, as a result of masturbation and, perhaps, gonorrhœa, notice after urination, defecation, or hard labor and in their sleep, the escape of a fluid which comes from the prostate. Second, cases in the same condition plus a little discharge, due to relaxation from chronic inflammation of the ejaculatory ducts, the ampullations and the seminal vesicles. Third, older men, in whom gonorrhœa and sexual excesses have reacted upon all the seminal parts, and who, spontaneously or in urination, or at

stool, or in exercise, notice a quite copious secretion, which consists, in some cases, of prostatic mucus, and also of the secretions of the seminal vesicles and ampullations. In these three categories may be included all the cases to which the term spermatorrhœa may in any way be applied." Thus this great bugbear of quack medicine, the so-called spermatorrhœa, which has deluded the minds of youth and many of mature age, becomes at once recognized as a symptom dependent upon an easily located and usually curable condition.

The symptomatic remedy, if carefully selected, is often one of the following: Agaricus, Agnus cast., Alumina, Argentum nit., Aurum met., Baryta carb., Caladium, Calcarea acet., Calcarea carb., Cannabis Ind., China off., Clematis, Conium, Dioscorea, Erygnium, Gelsemium, Graphites, Hamamelis, Hepar sulph. c., Hydrocotyle, Ignatia, Iodium, Kali carb., Kali brom., Lachesis, Ledum, Lithium, Lycopodium, Magnesia carb., Magnesia mur., Mercurius, Mezereum, Muriatic acid, Natrum carb., Natrum mur., Nitric acid, Nuphar lut., Nux vom., Petroleum, Platina, Phosphoric acid, Phosphorus, Phytolacca dec., Plumbum, Sabadilla, Sabal ser., Sepia, Silicea, Stannum, Sulphur, Tribulus ter., Ustilago maidis or Zincum.

Tuberculosis of the urethra may locate in any portion of the canal and cause a chronic discharge. The disease may originate from tubercular bacilli entering at the meatus, but more frequently it results from direct extension of a prostatic or vesicular tubercular involvement. The bacilli may be found in the discharge, though sometimes the diagnosis can only be positively made by inoculation of guinea pigs with the fluid and their subsequent examination. Tubercular epididymitis is frequently preceded by a urethral discharge, which is often erroneously diagnosticated.

The climatic and general treatment will be greatly assisted by such remedies as Calcarea carb., Calcarea iod., Sulphur, Bacillinum, etc., when indicated by the symptoms.

The urine in sexual disorders is abundant, of low specific gravity and generally alkaline in reaction, due to increased quantity of carbonates or phosphates. Transitory albumi-

nuria and glycosuria are sometimes present; occasionally oxaluria. Indican is frequently found in the urine of those sexually weak. The oxalate of lime or an excess of uric acid may, by their local irritant action, be accountable for many of the symptoms known as sexual disorders. A strongly acid or irritating urine, from any cause, may, by its direct effect upon the mucous membrane of the prostatic urethra produce structural changes and consequent sexual weakness.

Micturition is increased in frequency. It may be accompanied by straining and dribbling of the urine. Sometimes there is retention, or true stuttering urination, caused by spasmodic contraction of the compressor urethræ muscle. A few drops of blood may be expelled with the terminal urination.

This condition is often relieved by Agaricus musc., Agnus cast., Ambra gris., Anacardium, Alumina, Argentum nit., Arnica mont., Aurum met., Belladonna, Berberis vulg., Borax, Brachyglottis, Caladium, Calcarea acet., Calcarea carb., Calcarea phos., Camphora, Cannabis Ind., Cannabis sat., Cantharides, Capsicum, Carboneum sulph., Causticum, Clematis, Cobalt, Conium mac., Cubeba, Equisetum, Eryngium ag., Euphorbium, Ferrum, Fluoric acid, Gelsemium, Ginseng, Graphites, Hamamelis, Hepar sulph. c., Ignatia, Iodium, Jatropha, Kali bich., Kali carb., Kali iod., Lachesis, Lithium, Lycopodium, Magnesia carb., Magnesia mur., Manganum, Mercurius, Mezereum, Moschus, Muriatic acid, Natrum carb., Natrum mur., Nitric acid, Nux vom., Opium, Osmium, Oxalic acid, Petroleum, Phosphorus, Phosphoric acid, Pulsatilla, Sabadilla, Sarsaparilla, Sepia, Stannum, Staphysagria, Sulphur or Zincum.

Reflexes.—In the early stages of sexual disorders, a highly hyper-sensitive condition of the urethra is characteristic, accompanied by burning pains extending to the testes, anus, inner side of the thigh, hypogastric region and the kidneys.

In the earlier periods of disease of the posterior urethra the mucous membrane is greatly engorged and the terminal sensory nerve filaments consequently irritated. Later, the inflammatory exudate, becoming organized, contracts and

pressing on the terminal nerve fibres causes many reflex and unexpected symptoms.

The reflex symptoms produced are characteristic. Mental application is fatiguing, concentration of mind difficult, and brain work, formerly easy, grows difficult and burdensome, and in time impossible of accomplishment. Gradually the patients become dependent upon others, and with the loss of self-command, irritability of temper develops with suspiciousness of their immediate family, friends and business associates, and loss of control of self and firmness of character. Indecision gradually creeps on, accompanied by a desire to shun acquaintances, the victims going out of the way to avoid business or social friends, caused by feeling they have lost their aggressiveness and individuality, or the assumption that the community knows their mental and physical condition. They are cognizant of the fact that they have lost their grip. Some contemplate and, if not properly treated, do commit suicide, fearing that if they live much longer they will be proper subjects for the mad-house. Restlessness, both mental and physical, is very characteristic; vertigo and dull headaches occur; wandering neuralgic pains, with weakness in the small of the back and extremities, accompanied by general muscular feebleness and emaciation; cardiac palpitation, shortness of breath on the slightest exertion; cough; poor circulation; cold, clammy hands and feet, with digestive disturbances, colic and constipation, all accompany this condition.

The remedy in sexual disorders is often suggested by the reflex symptoms which are well marked in Agnus cast., Ambra gris., Anacardium, Alumina, Argentum nit , Aurum met., Berberis vulg., Caladium, Calcarea acet., Calcarea carb., Cannabis Ind., Cantharides, China off., Conium mac., Digitalis, Eryngium aq., Gelsemium, Graphites, Hydrocotyle, Ignatia, Kali brom., Lachesis, Lycopodium, Muriatic acid, Natrum carb., Natrum mur., Natrum phos., Nitric acid, Nux vom., Oxalic acid, Petroleum, Phosphoric acid, Phosphorus, Platina, Rana bufo, Sarsaparilla, Selenium, Sepia, Staphysagria, Sulphur, Tribulus ter. and Zincum.

Prognosis.—The cure or relief of functional disorders of the generative organs of men depend somewhat upon the

age of the patient, being more favorable when they are under forty and in comparatively good general health, the prognosis becoming progressively unfavorable as age advances. It is also dependent upon acquired local lesion, congenital malformations or the variety of sexual excesses and habits which have produced the sexual weakness. The younger the patient when unnatural acts were committed, the more difficult will be the cure, excesses in developing youth being especially detrimental. If bad habits are practiced only after full adult life is reached, their lasting effects are not so serious, provided, in all cases, they are discontinued. The prognosis depends upon the ability of the medical adviser to find the true cause. If it can be found and hygienically, medicinally or surgically removed the more favorable will be the prognosis. If treatment is properly advised and followed, all cases can be relieved and the majority cured, the time required varying greatly in different cases, being from a few months to years, much depending upon the individuality of the patient. The most troublesome cases are those suffering with the symptoms of the later or anæsthetic stage, with impotence, diurnal emissions, chronic seminal vesiculitis and chronic prostatitis in its various forms. Many of these cases are curable, but in some relief only can be promised.

Treatment.—The cause should be removed if possible, and then attention give to the local lesion. If the original cause cannot be removed or discontinued, the treatment will be a failure. Sexual and general hygiene are of great importance. All sexual excitement must be prohibited. The society of men and women who are, in any way, likely to carnally excite the patient is to be shunned, and only persons with pure minds, instincts and inclinations cultivated. Literature of a licentious tendency or of too deep mental requirements must be avoided and the reading restricted to of that a light interesting nature and of good moral character. To remove unchaste thoughts from the mind, it is well to cultivate some special hobby of the day, as stamp or coin collecting, biology, etc. Moral plays, games, golf, musical societies, etc., are to be recommended, but no patronage should be given to theatricals in which the

lewd is suggested or introduced. The amount of sleep must be regulated and at least eight of the twenty-four hours should be so occupied. A bed with woven wire springs and a hard hair mattress is advisable, with light clothing, comfortable but not too warm. Sleeping in the dorsal position should be prevented, as it causes congestion of the spine and pollutions. A towel tied around the waist with the knot placed in the center of the back, or a square block of wood held in place by tapes, which awakens the patient when he turns on his back during sleep, will often prevent or break the tendency to nocturnal emissions.

In cases of great hyperæsthesia of the parts, and frequent nocturnal emissions, light calisthenics followed by a cool bath and massage at bed-time are sometimes advisable, or an alarm clock may be used to ring every four hours to awaken the patient, at which periods he should arise, evacuate his bladder and relieve the pressure upon the return circulation. These means failing, King's electric ring annunciator can be used, but the anti-pollution ring with sharp teeth to dig into the skin when erections occur is ill-advised and barbarous. Bathing must not be neglected; in the hyperæmic stage of sexual disorders, hot sitz baths, 105° F., of ten minutes duration at bed-time, are of great benefit. Drying of the parts after the bath must be carefully accomplished with a soft towel; friction and rough towels must never be employed. In the later period, with anesthesia of the parts, cold baths and friction are better. A cold shower gives good results, though a needle spray applied to the genitalia, inner sides of the thighs, hypogastric region and the small of the back for ten minutes night and morning can be applied to advantage. If possible, the water should be used alternately hot and cold. A good general effect can be obtained by pouring a pitcher full of cold water down the back or by allowing it to flow over the chest, abdomen and genitals. If bath accommodations are wanting, ablutions of the parts night and morning can be substituted.

The diet must be plain, nourishing, easy of digestion, and non-irritating to the intestines. Stimulants must be avoided in the hyperæmic stage, but sometimes in the anæsthetic they are of great service. Tobacco must be interdicted, it having

the power in some constitutions to destroy sexual desire. Cigarettes are especially harmful. Celery, tomatoes, asparagus, condiments, salt and salt meats of all kinds must be discontinued during the hyperæmic stage; they are, however, beneficial in the more chronic conditions. Pure water is to be advocated, but fluids of all kinds must be avoided after the 6 P. M. meal, as they cause over-distention of the bladder during sleep, interfere with the return circulation from the prostate and produce hyperæmia with its consequent train of symptoms. Coffee must not be allowed in the hyperæmic period, but may be resumed during the later stages. The bowels must be regulated. If this cannot be accomplished with the indicated remedy Hunyadi water or fl. ext. Cascara in appropriate doses may be administered, but catharsis must not be produced. When nocturnal emissions are frequent the bowels should always be evacuated before retiring. Local diseases of the anus and rectum should receive appropriate treatment, as they are frequent causes of functional sexual disorders. The liver and digestive organs, as well as the other organs of the body, must in all cases receive attention. If the urine presents abnormal conditions medical, chemical or physiological means must be employed to return it to and keep it in a healthy condition.

Out of door exercise and employment are to be generally advised, but always in moderation. The bicycle, under careful medical supervision, is in some cases beneficial. The saddle must be so constructed that the body is supported entirely by the tuberischii, relieving all pressure upon the perineum. The erect position must always be maintained, and racing and overfatigue avoided. This exercise must be discontinued if at any time it appears to be detrimental. Horseback riding is to be interdicted. General massage is beneficial. Exposure to cold, damp draughts of air or anything that causes cold must be avoided. In fact, the daily life of the patient must be carefully and scientifically regulated, yet with care and judgment, shunning restrictions which may become irksome to the patient.

As a rule it is advisable that coition be discontinued during treatment; the forcing of the sexual act through fear that, if

relinquished, all power will be lost, is always to be condemned. Treatment must be so directed that the parts are kept in a quiescent state. In those who are married, intercourse may be allowed once or twice a month, providing it does not produce exhaustion, pain in the lumbar region, congestion of the prostate or increase the local disease in the seminal vesicles. If it does, it must be strictly prohibited. It is sometimes advisable for married couples to occupy separate beds, but in this respect much depends upon the nature of the wife, etc. When masturbation has been suddenly stopped, nocturnal emissions usually become at first more frequent, but as the genital organs regain their healthy tone, they cease or become normal. Patients should be informed of this probable condition or they will, in their morbid state, think they are growing worse. Under no circumstances should fornication be allowed or advised, as it is injurious, will do no good, and may make the treatment unsuccessful. In the author's opinion, in the majority of cases, the physician might as well advise masturbation.

The indicated remedy must be carefully selected to cover not only the local but the general symptoms. In this part of the treatment we have a great advantage over Old School physicians. Fuller and Lydstone who have given this subject very careful consideration, affirm, that after the cure of a local disease, symptoms frequently remain for months or years. These same symptoms are frequently quickly removed by the indicated remedy.

Cod liver oil acts very kindly. Hemaboloids, by building up the system and increasing the number of red blood corpuscles, are beneficial. Hypophosphites are very useful.

In many cases of hyperæmia or catarrh of the posterior urethra, as well as in all cases complicated by cystitis, the bladder douche, as advised in chronic seminal vesiculitis, is to be recommended. Deep urethral douches, applied either by the hydrostatic method of Valentine, or with the Janet antiseptic vesical syringe, or a fountain syringe to which is attached a soft rubber catheter of proper size and length are useful. A few ounces to a pint of the hot selected solution, as recommended in bladder lavage, every one to four days as in-

dicated, may be used to advantage. Sometimes instillations act best when applied through a soft rubber catheter cut 8½ inches in length, so that the eye of the catheter when fully introduced will be located in the centre of the prostatic urethra; when, with a Taylor's minim syringe, from ten to sixty minims of the appropriate solution can be introduced and applied without injury or special pain, the compressor urethræ muscle preventing the solution from passing forward into the urethra and facilitating the backward flow of the surplus into the bladder. The Keyes-Ultzman syringe should be used for the strong instillations, and the bladder should be partly full at the time of instillation to properly dilute the solution before its exit through the urethra. If the neck of the bladder or prostatic urethra requires local treatment with the weaker solution, the bladder should be emptied before the application. The stronger solutions which give excellent results are Nitrate of Silver, 1 to 10 per cent., Cuprum Sulphate, 10 per cent., or Tinct. of Iodine, Carbolic Acid and Boro-glyceride equal parts. When using the stronger solutions, commence with a solution one-tenth the strength of the one to be finally used, and, at the first seance, apply only ten minims, gradually increasing a tenth at each sitting, and repeat every fourth day until the strength desired is reached or satisfactory results have been produced.

The weaker solutions should always be placed in the posterior urethra, and allowed to flow back into the bladder and voided per urethra, thus giving a double application. In the anterior urethra, strong applications should be made through the electric urethroscope; the weaker urethral irrigations of Nitrate of Silver, 1 to 2,000 to 8,000, Permanganate of Potash, 1 to 1,000 to 10,000, Permanganate of Zinc, 1 to 3,000 to 10,000, Bichloride of Mercury 1 to 10,000, Sulpho-carbolate of Zinc 1 to 1,000 to 3,000, Carbolic Acid 1 to 100 to 500, can be used with the hand syringe or by the hydrostatic method of Valentine and Janet. The efficacy of all urethral irrigations is greatly increased by heat, and they should therefore be used as warm as is agreeable to the patient. When Nitrate of Silver solution causes too much reaction, the pain can be relieved by a supplementary douche of Sodium

Chloride. If urethral instillations cause too great reaction they must be discontinued, reduced in strength, or be preceded by a solution of cocaine.

All instrumentation must be performed under strict asepsis. Instruments must be annointed to facilitate their introduction with lubri-chondrin, boro-glyceride, 33 per cent., sterilized white vaseline or albolene. When the hyperæsthesia in the posterior urethra, with or without impotence, continues, the urethral psychophore, with cold water at 40 to 50° F., applied for five or ten minutes, every one to three days, is very beneficial, especially when the urethral discharge is free from pus. In anæsthetic impotence, with loss of tone of the parts, hot water, at 105 to 110° F., acts very kindly. A psychophore of sufficient size to fill the urethra should be selected, and so placed that its three distal inches come in exact relation with the local lesion, the remaining portion of the instrument not transmitting heat or cold.

The warm or cold full-sized conical steel sound introduced every fifth day, by its massage effect, relieves hyperæmia of the urethra, and its pressure from within acts kindly upon all the lobules of the prostate which are in a state of catarrhal inflammation. If proper care, however, is not observed in introducing the sound, particularly early in the treatment, or it is allowed to remain in the urethral canal too long (five to ten minutes as advised by some authorities), many unpleasant results may occur.

Strictured conditions of the urethra may necessitate meatotomy, internal or external urethrotomy, gradual dilatation or a possible division by Fort's linear electrolysis.

A diseased condition of the prostatic urethra may require the prostatic dilator to mechanically open and empty the follicles of the prostate, as the prostatic urethra cannot be completely distended with a steel sound which the remaining portion of the canal admits. When this is necessary the author's prostatic dilator will be satisfactory, but if it is desired to dilate the bulbous urethra simultaneously, the Kollmann's antero-posterior dilator will be required. The prostatic urethra can frequently be dilated to a 36 to 42 F. to great advantage. Prostatic dilatation should always be preceded by

urethral irrigation, and be followed by a proper bladder douche or urethral instillation. It should not be repeated more frequently than once in ten days.

Hot or cold rectal injections of a full quart of a weak Sodium Chloride solution about $\frac{7}{10}$ per cent., thrown against the prostate and seminal vesicles once daily may be of benefit, but in chronic cases the rectal psychophore or Kemp's prostatic cooler, will be found more convenient and will give equally satisfactory results. In acute cases, hot water should be used. The rectal bag of hot or cold water as indicated, applied from ten to twenty minutes every second day, is often very beneficial.

Rectal suppositories containing a grain of icthyol introduced at bedtime, often cause rapid absorption of inflammatory material in the prostate and peri-prostatic tissues. Massage of the prostate is of the utmost importance. It can be given advantageously once a week. Electricity often gives satisfactory results. Faradism can be used to advantage with the brush applied to the genitalia, or with King's rectal electrode. It invigorates the muscles of the genital organs and perineum. When using the galvanic current, the positive pole must be applied to the lumbar or sacral region and the negative to the parts by means of the electrode or a conical steel sound. In the hyperæmic urethra the ordinary steel sound is the best electrode. A current of one or two milliampères may be given, but should not be continued for more than one or two minutes. As the general urethral condition is relieved, and the hyperæsthesia becomes localized or confined to the prostatic urethra, or the openings of the ejaculatory ducts, the Newman sound will be required. With this, three milliampères can be given. Galvanism by means of King's rectal electrode, as advised in chronic seminal vesiculitis, is frequently required. In some cases, local treatment irritates and aggravates the condition; here the indicated remedy and general hygiene must be depended upon. The various methods of local treatment can be used separately or together. Every case, however, must be carefully studied and individualized and surgical relief given when required. Careless or routine medication almost invariably results in failure.

CHAPTER XIX.

PSYCHOPATHIA SEXUALIS.

The various forms of sexual perversion may be described under the following headings: Masturbation, Priapism, Satyriasis, Sexual Excesses and Impotence, together with Sexual Paræsthesia, this form being divided into Heterosexual and Homosexual perversions.

Masturbation.—The etiology has already been discussed in the introductory and in the chapter on functional sexual diseases. In the opinion of the author, the mental and physical conditions caused by this habit have been greatly exaggerated. He believes that a great injustice has been done boys collectively by the claim that it is universal and is practiced to excess by a majority of them. From a careful history of a large number of patients he is thoroughly convinced that the habit is only practised to excess by those who have some local focus of irritation, as phimosis, adhesions of the preputial sac, retained smegma, thread worms, hemorrhoids, stone in the bladder, etc. Sometimes it is induced and established by nurses, who handle the parts to quiet the child. It is occasionally a result of the accidental discovery of a pleasureable sensation, as when climbing a tree or sliding down a banister. Onanism is undoubtedly caused in many cases by nervous defects, as noticed sometimes in epileptics, hydrocephalic infants, and those suffering with cerebral and spinal diseases.

The views of Sir James Paget seem to us to be wholly correct. He said that: "You may teach positively that masturbation does neither more nor less harm than sexual intercourse practised with the same frequency with the same conditions of general health, age and circumstances—that is, at any time

before or at the beginning of puberty—masturbation is very likely to produce exhaustion, effeminancy, oversensitiveness, and nervousness, just as equally frequent copulation at the same age would probably produce them. Or, practised every day, or many times in one day, at any age, either masturbation or copulation is likely to produce similar mischiefs or greater. And the mischiefs are especially likely or nearly sure to happen, and to be greatest, if the excesses are practised by those who, by inheritance or circumstances, are liable to any nervous disease, to 'spinal irritation,' epilepsy, insanity or any other neurosis. But the mischiefs are due to the quantity, not to the method, of the excesses; and the quantity is to be estimated in relation to age and the power of the nervous system." He has seen as numerous and as great evils consequent on excessive sexual intercourse as on excessive masturbation; but he has not seen or heard anything to make him "believe that occasional masturbation has any other effects on one who practises it than has occasional sexual intercourse, or anything justifying the dread with which sexual hypochondriacs regard the having occasionally practised it."

Dr. H. Fournier, one of the most eminent physicians of Paris, says: "There is not a vice more fatal to the conservation of man than masturbation. This unfortunate habit is sometimes acquired by very little boys and girls. Foolish or vicious nurses may bring it on by handling young children most indelicately. This is one of the many reasons why none but virtuous servants and nurses should be employed by wise parents and physicians. In later years, children often learn this degrading and most injurious vice from their depraved companions, some of whom seem even to regard the practice of it as a manly accomplishment. When habitually indulged in, it produces on the health and the strength of the constitution effects the most deplorable. Even the intellect is liable to become thereby enfeebled, a want of virility is exhibited both in the body and in the mind of its victims; then follows a loss of ambition and self-control."

"When this morbid passion gets control of a person," writes an experienced practitioner in medicine, "it is as though an unclean spirit had entered, subdued the will, weakened the

moral forces, enfeebled the intellectual faculties, lessened the power to resist temptation, and overcome every obstacle opposed to its gratification. Even while the intellect is still clear, and the sense of wrong keen, the individual is a slave to this morbid impulse." This habit if practiced to excess, produces hyperæmia of the bulbous and prostatic urethra, which in time becomes a true catarrhal inflammation, involving, during its course, the verumontanum, the sinus pocularis, the prostate and the seminal vesicles, and manifests itself by the many and varied symptoms already described as peculiar to these local conditions. There is with this condition general relaxation and numbness or hypersensitiveness of the scrotum, the testes may become soft and flabby, the skin of the penis dark and thickened, the prostate swollen and sensitive, and, if pressure is applied, prostatic fluid is easily pressed into the urethra. The seminal vesicles are frequently hyperæmic, inflamed and distended. In the more severe cases micturition becomes frequent, and incontinence or dribbling of the urine is not uncommon. The voiding of the urine is frequently accompanied by a severe burning sensation as though hot lead was passing down the canal, the act terminating with a flow of blood and constrictive pain in the prostate. The nervous lesions and neurasthenic manifestations are legion, as already enumerated under chronic seminal vesiculitis and disorders of function of the generative organs of man.

When long-continued, masturbation undermines the constitution. It is especially harmful when practiced to excess by the growing boy, whose sexual organs and nerve centres are immature and undeveloped. Fortunately in the majority of cases the bad effect of the habit is discovered by the patient and discontinued or proper steps are taken to make him understand the effect of the habit and realize its demoralizing results if continued. Infantile masturbators are usually characterized by their irritable, peevish condition, flabby tissues and lowered powers of digestion and assimilation.

Treatment.—The young masturbator must be told of the perniciousness of the habit and its serious consequences if continued. This advice should be given in a kindly

way, persuasion and sympathy doing more than fear and punishment. In all cases the parts must be carefully and scientifically examined and judicious attention given to any point of irritation likely by reflex condition to cause abnormal hyperæmia of the genitalia. In young children the knowledge of its danger should be imparted by the mother; at a later period, by the physician.

Pure morals promote health and strength, give vitality to form, grace of action, keenness of intellect, continued energy, and lasting success, with years of life, while excessive and abnormal sexual acts and habits undermine the system, sap the constitution, exhaust the mental and physical system, and lead to early death or decrepit old age. Boys who have practiced or who are suspected of practicing masturbation should not be kept too closely at their studies, but should be encouraged to engage in out-door sports and exercise. They should be carefully watched and advised, and when the habit is discovered should not be allowed to associate too intimately with other children or to occupy the same beds with them.

Sexual Excesses.—The sexual vigor varies greatly in different individuals. Immoderate indulgence for one may be moderation for another. The results of sexual excesses usually appear between the fortieth and fiftieth years. If the cause of diminished sexual vitality can be found and removed, though there is frequently associated general disease or intemperate acts, much can be accomplished. Sexual excesses, if continued only for a short time or indulged in occasionally, usually right themselves, as is frequently observed in the young or old recently married man. Excesses are always to be condemned, and whenever they have produced sexual weakness, if any part of the sexual tract is diseased, it must receive proper attention, its return to a normal condition frequently resulting in revitalization of the patient. At the same time it is well to impress the idea that the control of the sexual appetite adds strength of mind, bodily health, power and soundness of judgment, with length of life. If the inordinate appetite is gratified the commencing

vesiculitis, ampullitis and prostatitis will become chronic, with the train of well-known symptomatic manifestations.

Heterosexuality is a variety of sexual perversion characterized by a desire for association during coitus of acts of cruelty and violence, presenting itself either as an active or passive algolagnia.

Sadism, or Active Algolagnia, is that variety of sexual perversion where the acts of violence are directed against the co-partner. It is more common among males than females. It is a frequent cause of uncontrollable and unnatural crimes, as probably exemplified in the Whitechapel murders and, in a less degree, in those abnormal impulses in which ejaculation only occurs while its victims are biting, scratching, or in some other manner inflicting pain upon their companions.

Moschism, or Passive Algolagnia, is the opposite to sadism, the sexual pervert only experiencing carnal pleasure when he subjects himself to violence and cruelty, varying from the slightest to the most repulsive.

Homosexuality is characterized by sexual desires and instincts opposite to those which the sex would naturally indicate. It has the following varieties:

Psychical Hermaphroditism, is characterized by a degree of inversion of sexual instinct with pronounced desire for sexual relations with members of the same sex with an occasional desire towards the opposite sex;

Urnings, characterized by sexual desires and inclinations for persons of the same sex exclusively, with disgust for coitus with the opposite sex. The victims are usually emotional and passionate, and present sentimental attachments for those of their own sex which would be considered normal only between individuals of opposite sexes. These are usually unable to have normal successful intercourse. In this class mutual masturbation is common, and pederasty affords the greatest sexual gratification.

Effemination and Viraginity is characterized not only by inversion of the sexual instincts, but all feelings and inclinations in habit, sentiment and character are reversed. Coitus with the opposite sex is impossible. The man has the feelings of and acts like a woman.

Androgyny and Gynandry is a most extreme type of homosexuality. Not only are the feelings and sexual desires reversed, but the form, features and voice closely approach those of the opposite sex, and the genital organs frequently present anatomical signs of degeneration.

CHAPTER XX.

STERILITY.

As a twentieth to a fifth of all childless marriages are due to some sexual weakness of the husband, this condition should receive careful consideration. The inability to propagate one's kind is not necessarily accompanied by impotence. It may be due to absence of or a diseased condition of the spermatozoa, to congential or acquired obstruction or obliteration of some portion of the genital tract.

In some of the uncivilized parts of the world male sterility is compulsory. Carl Lumholt, in his "Four Years in Australia Among Cannibals," says the "Mika-Operation" is required by law. "In a few tribes the children are operated on, only about five per cent. being spared. In other tribes it is the husband who, after becoming the father of one or two children, must submit to the requirements of the law, the reason for the operation being that they do not like to hear the children cry in the camp, or be burdened with too many children." The artificial hypospadias is produced as follows: "The cut, which is made with a flint knife, is about an inch long, and extends almost to the scrotum. The surface of the wound is first burnt with hot stones, whereupon the wound is kept apart by little sticks, and in this manner an opening is formed though which the sperma is emitted." He further adds: "The natives of these tribes are fat and in good physical condition."

For convenience of description sterility is classified as Oligospermatism, Oligozoospermatism, Azoospermism, Asspermatism and Misemission.

Oligospermatism is that variety in which there is a deficiency in the quantity or quality of the seminal fluid. It may be due to the various anomalies of the genitalia or removal of the parts, but more frequently it is the result of disease. Excessive venery may, for the time being, impair the quantity

and quality of the seminal fluid ejaculated. In wasting diseases, in the feeble and those advanced in years, the quantity of spermatic fluid ejected is usually reduced. When the prostate fails to give its quota of secretion to mix with the deeper fluid a thick spermatic fluid results. Chronic inflammation of the seminal vesicles and ampullations of Henel may so modify their secretions as to produce thickening of the vesicular fluid, and the spermatozoa, though properly liberated, become agglutinated, or the seminal fluid may, on the other hand, become so watery in character and so diluted that the spermatozoa are washed out of the vagina. This latter condition is sometimes the result of gonorrhœal vesiculitis. The spermatozoa contained in the seminal fluid may be of low vitality or lifeless, the admixture of pus from the deeper portions of the genital track being a frequent cause of this condition, its presence giving a yellow or green color to the spermatic fluid.

Oligozoospermatism is the variety in which the ejected spermatic fluid contains comparatively few spermatozoa, the result of imperfect development of the testes, as in ectropia testes, or of advanced years, when there is a tendency to fibrous and malignant degeneration, temporary or permanent disablement of the testicles by epididymo-orchitis of any form —simple, tubercular, traumatic, gonorrhœal or syphilitic— producing obstruction in the conducting tubes by inflammatory changes. Syphilis often brings on this condition without producing local lesions demonstrable by a local or general examination of the parts, though, usually, there is a history of a specific orchitis or epididymitis, in which case it involves by preference the head of the epididymis, while in gonorrhœal involvement the tail is usually attacked. Pressure exerted by hydrocele or hæmatocele may temporarily cause the process of spermatogenesis to cease, the function returning on the removal or cure of the cause. Varicocele is supposed to produce atrophy of the testicles, and may therefore cause oligozoospermatism. Nerve involvement and the ingestion of certain drugs, such as potassium iodide, the bromides, etc., have caused it.

Azoospermism is the condition where the seminal fluid

does not contain spermatozoa, or, if present, they are diseased and unproductive. It may be due to double occluding epididymitis, simple, syphilitic or tubercular orchitis, obstruction at any point of the conducting tubes of both sides, atrophy or absence of the testes, etc.

Sterility may be due to want of life and vitality in the spermatozoa ejected. It is often the result of neurasthenia, masturbation or unnatural and ungratified sexual desires. Healthy spermatozoa should retain their life and vibratory motion for at least twelve hours after emission.

Aspermatism is a condition where copulation is not completed with the ejaculation of seminal fluid, the act in all other respects being normal. In these cases the sexual desire may be normal or absent. A nervous form of this condition exists, where the patient is unable to complete the act except with certain parties, caused by an imperfect co-ordination of the muscles of ejaculation. In some cases there are occasional nocturnal emissions but a complete failure of ejaculation when intercourse is attempted, owing to the above cause, or to a sensory paralysis. It may be due to obstruction by a foreign body in the seminal ducts. The pressure excited upon the urethra by tubercular, malignant and other growths, loss of tone of the muscles concerned in the act of ejaculation, or anæsthesia of the prostatic urethra or glans penis may cause this condition. In some cases it occurs without local pathological cause, from want of lumbar reflex in the ejaculatory centers. In others there will be, under apparently the same conditions, ejaculation at one time and failure at another.

Misemission, also called false aspermatism, or male emission, is the condition where, although seminal fluid is ejaculated during the act, it is not deposited in the vagina, either passing back into the bladder to be voided with the urine or to be discharged as a dribbling fluid after relaxation of the penis and deeper parts. It may be due to hypospadias, epispadias, strictures, or fistulæ of the urethra. The prognosis and treatment vary with the cause, which must be carefully searched for and treated as the individual, local or general lesion may dictate.

CHAPTER XXI.

THERAPEUTICS.

Acidum Fluoricum.—Sexual desire increased, with erections at night during sleep; erections in the morning without desire; occasional sticking pain extending through the left testicle along the spermatic cord to the abdominal ring; frequent desire to urinate; burning in the urethra during and after micturition in the morning; whitish or copious purple sediment in the urine. Forgetfulness of dates and common employments; exceedingly anxious; sensation of weakness, like numbness in the head. A marked characteristic is apparent necessity for rapid and energetic motion.

Acidum Muriaticum.—Erections feeble; weak feeling in the genitals; awakens with a sensation as though emission would occur; erections feeble; seminal discharge watery, frothy, odorless, followed by persistent erection, with tensive pains in the penis; boring tension in right testicle, extending to the middle of the penis; constant desire to urinate, with scanty flow; must wait some time before the urine can be voided; frequent ineffectual urging at night to urinate; involuntary micturition at night; cutting pains far back in the urethra, when urinating and when at stool; cutting and biting in the meatus after urinating. Tottering gait from weakness; vertigo and unsteadiness. Headache on rising up in bed, or moving the eyes; restlessness.

Acidum Nitricum.—Erections diminished, unsatisfactory or absent; excited only by fondling, occasionally satisfactory; thrill imperfect; discharge of prostatic fluid during excitement; frequent emissions; tearing, twisting and burning pains in the left testicle and spermatic cord; bruised, sore feeling in the testicles; after stool and micturition discharge of prostatic fluid; discharge of mucus when not urinating;

smarting in the urethra when urinating, with burning, cutting and sore pains; penis sore to the touch; urine has the odor of horse urine; clear on passing, but on standing becomes cloudy and thready; sad and despondent; irritable, vexed at trifles. Especially suited for lean persons, with dark complexion, black hair and eyes.

Acidum Oxalicum.—Erections in the forenoon and when lying down, followed by dulness in the occiput, or by pains in the testes and spermatic cord; during micturition burning in the urethra, with voluptuous sensations; increased frequency of urination; burning through the urethra, as if a drop of acrid urine had passed; urine loaded with oxalate of lime; numbness and weakness of the limbs; circulation poor.

Acidum Phosphoricum.—Frequent and debilitating emissions, with very little sexual excitement; erections, without sexual desire, in the morning and when standing; sudden relaxation of the erection during intercourse; intercourse or emissions are followed by great exhaustion; excessive loss of seminal fluid, voluntary, involuntary, nocturnal or diurnal, when straining at stool, while urinating; penis and scrotum relaxed; testicles hang low down; general crawling sensation over the scrotum; erection difficult or impossible; when coitus is attempted ejaculation occurs too early in the act; micturition frequent, profuse; urine milky, having a white jelly-like sediment; frequent micturition, burning in the neck of the bladder; cutting in the prostatic urethra during micturition and followed by cramp-like pains in the small of the back; burning in the prostatic region; vertigo, as if about to fall; when reclining, sensation as if the feet would go higher than the head; crushing pain in the vertex, accompanied by cold, clammy perspiration late in the afternoon and evening; stupefaction or sensation as if intoxicated; low-spirited, indifferent, sad, disinclined to talk; eyes glassy and lustreless. Aching in the small of the back. Whole system generally relaxed without marked local pain; burning sensations in lumbar region; back and legs weak; totters when walking. It is particularly indicated in those who grow too fast or who are greatly debilitated; in cases of

excessive masturbation; for the debilitating effects of seminal emissions, being more suited for the acute than the remote symptoms. Onanism, when the patient is disturbed by the thought of the culpability of his indulgence; pain on the top of the head following the loss of animal fluids; indifference to the affairs of life; quiet apathy; weak feeling in the small of the back and heavy limbs; nervous palpitation in masturbators; face pale, eyes sunken, blue rings around them.

Acidum Picricum.—Priapism; violent erections; penis distended almost to bursting; agonizing desire for an embrace. (It is reported that many of the provers were compelled to leave lectures and return to their homes for a few days.) Seminal emissions, followed by hot feeling in the dorsal and lumbar regions, worse from motion; desire, with almost constant priapism night and day; lewd dreams and emissions; emissions every second night; erections continue for some time after the emission; violent erections at eleven A. M., with bruised pain in the left testis, extending up the cord to the external ring; urine yellow, dark, with strong odor, copious and pale; urine hot when voided, causing burning pain in the urethra; urine contains urates in abundance and indican. Tired, aching feeling in the lumbar region on awakening, with heaviness in the feet and lower extremities, accompanied by a heavy, tired feeling in the occiput, forehead, or both. The least mental exertion causes prostration and brain fag; vertigo on walking, stooping or going up stairs; numbness, crawling and pricking in the limbs; rapid development of boils over all parts of the body.

Aconite.—Stitching pains in the glans when urinating; frequent erections; drawing pains in the testes; tenesmus at the neck of the bladder; burning in the prostatic region when not urinating; drawing and pressing pain in the sides of the abdomen on pressure; prostatic region sensitive to deep pressure; fever, thirst, restlessness; testes swollen and hard, accompanied with bruised pains.

Agaricus musc.—No pleasurable sensation in the embrace in spite of strong excitement; aversion to sexual intercourse; ejaculation insufficient or very late; frequent nocturnal emissions; great desire for intercourse with relaxation of the

penis; emissions painful, with burning pain in the urethra; dragging in the testes in the evening; spasmodic pain in the left testicle and cord; penis cold and shrunken; discharge of viscid mucus from the urethra, or a sensation as though a drop of cold urine had passed; disagreeable sensations in the the glans penis; tickling as of a small foreign body in the fossa navicularis; burning when urinating, or a sensation as though they have not finished; micturition intermittent or only possible after several attempts, followed by dribbling; frequent urging to urinate; urine copious, accompanied with stitches in the meatus urinarius; urine scanty. It is often beneficial when coitus is followed with great weakness of the whole body; choreic symptoms caused by masturbation; bad effects from sexual excesses; complaints after sexual debauch, with loss of appetite; pains in thighs; nervous symptoms, twitching and jumping of the muscles.

Agnus Castus.—Impotence; organs relaxed and cold, nothing excites an erection; sexual desire diminished or almost lost; emission of mucus from the urethra during sexual excitement; involuntary emissions during the night, even after coitus; seminal fluid watery or yellow; testicles cold; emissions at night after an embrace; seminal fluid discharged in a stream without ejaculation; spermatic fluid scanty and almost odorless; discharge of prostatic fluid when straining at stool and during micturition; disagreeable sensation in the back part of the urethra during urination; deficiency of sexual instincts; low-spirited; melancholy; fear of approaching death; loss of memory; heaviness and pressure in the head as if it would fall forward; pain in the vertex and great debility; sleeplessness though very tired when retiring; sleeps but little during the night. This remedy has acted very kindly in impotence the result of a neglected gonorrhœa; useful in those advanced in years, who in their youth have carried sexual indulgence to extremes, and who, while physically impotent, are mentally excitable as in early life thus leading to many perverted acts and orgies.

Ambra gris.—Violent erections on awakening without carnal desire and the parts externally numb; after the erection subsides, tingling in the fore part of the urethra, burning

internally in the region of the seminal vesicles; intercourse delightful and voluptuous; pinching constrictive pain in the region of the mons veneris and bladder, sometimes on one side only; it may extend down the dorsum of the penis, occurring when the bladder is full and after emptying it; dragging pains in the spermatic cord, extending into the testes; smarting, burning, stitch-like pains in the testes; coldness and swelling of the scrotum; penis shriveled and retracted; coldness and numbness of the prepuce and glans; stitches in the fore part of the penis; smarting and burning in the fore part of the urethra; ejaculations too early and too weak; neuralgic pains in the cord and testes; bloody emissions; urging to urinate, often the urine cannot be retained; feeling in the urethra as though a few drops were being expelled; burning in the orifice of the urethra; pain in the bladder and rectum; urine turbid and dark brown; great sensitiveness to external impressions, the slightest influence causing excitement and difficulty in breathing, usually attended with vertigo; forgetfulness; does everything in a hurry, yet time passes slowly; sleeplessness. Often indicated in thin, spare, nervous men. All pains in the genitals are increased by motion.

Anacardium.—Cutting pains along the penis; desire for an embrace from voluptuous itching in the scrotum; emissions at night without amorous dreams; discharge of prostatic fluid after micturition and stool; constant desire to urinate; frequent, clear, watery urine, especially before breakfast; urine turbid when voided, depositing a turbid sediment. Nervous prostration resulting from excessive emissions; lack of confidence; weakness of memory with impaired intellectual powers; psychical impotence; lack of confidence in their own powers; fear marriage on account of their supposed sexual weakness; tendency to curse and swear.

Aloe soc.—Frequent urging to urinate at night; difficult micturition; flow interrupted; burning on urinating; urine dark, with slimy sediment, bloody; fine granular cloudiness, with whitish sediment; pollutions during the mid-day nap; heaviness and pressure in the lower part of the abdomen, with a feeling of a plug in the pelvis; disinclination to mental

labor; speedy fatigue on mental application. It has been of benefit in acute prostatitis and in prostatic hypertrophy.

Alumina.—Emissions at night, with voluptuous dreams, also during the afternoon nap; jelly-like emissions during coitus; violent erections during the night and in the afternoon; constrictive pains in the right spermatic cord accompanied with the painful drawing up of the right testicle; pressure and drawing-like pain in the prostatic region; tenesmus at the neck of the bladder and in the rectum after urinating; urine white and turbid, as if chalk had been stirred into it; urine turbid at night; painful feelings about the soles of the feet; staggers when walking in the dark; burning pains in the spine. This remedy has been found especially useful in old people suffering with involuntary emissions, particularly when straining at stool.

Argentum nit. — Coitus painful, with stitches in the urethra and absence of pleasure; spasmodic contraction of the cremaster muscle, drawing the testes high into the scrotum; erections fail when intercourse is attempted; generative organs shriveled, with loss of desire; cutting pain from the prostate to the rectum when voiding the last drops of urine; sensation as though fluid was running down the urethra, or a burning drop after urinating; micturition difficult; burning pain and discharge of a white pedicle with shreds of epithelium from the mucous membrane; inability to void the urine in a projecting stream; at night, urine copious, pale and frequent; at noon, cloudy from mucus; inorganic salts increased. This remedy has been found useful in hypertrophy of the prostate and the anæsthetic stage of impotenc accompanied with general emaciation, poor circulation; blue skin, general loss of strength and trembling of the limbs, particularly of the lower extremities.

Arnica.—Erections after walking, without amorous thoughts or desires; carnal desire with continued erections; stitches through the glans penis in the afternoon; itching of the glans; emissions during a caress; several at night with voluptuous dreams; stitches in the anterior part of the urethra after urinating, also between the acts; ineffectual urging to urinate; desire to urinate, with burning and biting after urinating; fre-

quent micturition; urine scanty and white, pale and copious; urine retained with aching and pressing in the bladder; has to stand a long time before the urine is voided; inability to retain the urine long at night; urine flows slowly; earthy phosphates increased; sediment contains crystals of phosphoric acid, ammonia-magnesia phosphates and urates; urine acid in reaction, high specific gravity; sulphur-colored, turbid, frothy, neutral in reaction, depositing a sediment.

Dr. S. W. Mills reports a case of chronic prostatitis, with a feeling of soreness in the testes, pain extending to inguinal region and back accompannied with a discharge at the end of the penis in the morning and on walking, cured by Arnica. The remedy is also indicated in traumatic priapism.

Aurum met.—Nightly erections, with or without pollutions, not followed by weakness; strong erections, with relaxation on attempting intercourse; penis relaxed, with discharge of prostatic fluid; seminal emissions do not apparently cause weakness; tearing stitches in the glans penis when obliged to urinate; urine more copious than the amount of water imbibed turbid like buttermilk, with much mucous sediment; low-spirited; lifeless; memory bad; settled melancholia with suicidal mania; appetite for plain food poor; tongue coated at the back.

Baryta carb.—Diminished sexual power and desire; falls asleep during coitus; sudden erection in the evening, with shivering of the body and great desire; emissions are followed by a dryness of the whole body; enlarged prostate; want of confidence in others; vertigo; trembling when standing, with fear of falling; feeling of heaviness in the body; general emaciation; sensitiveness to cold; all symptoms aggravated when thinking of them. Useful in the aged, where there is great weakness of mind and body; premature impotenc.

Belladonna.—Nocturnal emissions with relaxed penis and without lascivious dreams; drawing pains in the spermatic cord during micturition; discharge of prostatic fluid from relaxed penis; micturition difficult; urine voided only in a small stream; frequent urging to urinate; pain in the region of the bladder; twisting as of urine in the bladder; when walking stitch-like pains from the bulb to the meatus; burn-

ing in the urethra, with ineffectual urging to urinate; involuntary micturition when asleep; irritation at the neck of the bladder, with strangury and bloody urine; urine deep red, bloody, turbid with reddish sediment. Sexual irritation in boys manifested by constant erection and seizing of the member with the hands.

Berberis vulg.—Erections weak; ejaculation occurs too early; thrill not satisfactory; neuralgic pains in the testicle and cord, increased by motion; urine pale yellow, with slight gelatinous sediment, which does not deposit, or a turbid, flocculent, clay-like, copious, mucous sediment mixed with white or whitish gray, and later a reddish mealy sediment; urine clear, saturated, yellowish thick, flocculent, or like muddy water, depositing a copious mealy sediment, with white, greyish white or a dirty red granular sediment It is specially useful in sexual disorders, accompanied by neuralgic pains, apparently located in the testes, which are sore and sensitive.

Borax.—Rapid emissions with dreams of coitus which awaken; emissions very soon after intromission, with continued irritation of the genitals; meatus agglutinated; urging to urinate, with pain at the meatus after urinating, as if it were sore; burning tension in the urethra after urinating; urine has a pungent odor.

Brachyglottis.—Pain in the bladder during micturition, with soreness in the urethra and a feeling as though the urine could not be retained; pain in the bladder and urethra after evacuation, with stinging in the penis; pressure at the neck of the bladder, with soreness and urging to urinate; stinging pains in the urethra; throbbing of the penis, with a desire to urinate, and pressure in the bladder; urine abundant and pale; full of mucus, pus corpuscles and epithelium, oxalates, phosphates and triple phosphates; loss of flesh, weakness, heaviness, irritable mood, confusion in the head; vertigo with flushed face. Gnawing pain in the region of the kidney; weakness after walking, weariness in the back, weakness of the limbs in the morning.

Bromium.— Emissions at night; during coitus early discharge of clear mucus from the urethra; stitches in the

meatus and along the side of the penis; burning after urinating, with pulsation behind the testes; sensation of fulness in the prostate gland when walking; stitches in the left spermatic cord and pressure in the right; swelling of the left testicle; urine turbid with whitish sediment, containing large flakes of white mucus.

Cactus grand.—Congestion of the genito-urinary organs; priapism towards evening, just before retiring, with great desire; copious emissions about 12 P. M., after strong desire; frequent urging to urinate at night; ineffectual urging; urine voided in drops, with much burning; irritation of the urethra, as though he would constantly urinate; redness of the orifice of the meatus; heat in the urethra.

Caladium.—Glans penis flabby and relaxed, the result of masturbation; want of tone in the organs; when the foreskin is retracted there is not sufficient reaction or contractibility of the parts to replace themselves, or, after coitus, the prepuce remains behind the glans and becomes swollen and painful; relaxation of the penis during sexual excitement and desire; erection suddenly ceases during coitus, without cognizance as to whether there was an ejaculation of semen; no orgasm; parts flabby; imperfect erection, with permature orgasm; nocturnal emissions, with or without lascivious dreams, or with dreams in no way associated with sexual subjects; complete impotence without erections; genital organs cold to the touch; urine pale, turbid, with a pedicle and gelatinous precipitate, smells strong; low-spirited, gloomy, forgetful; attacks of faintness after writing or mental exertion; disinclination to move or act; lewd thoughts without erection.

Calcarea acet.—Frequent emissions at night with or without voluptuous dreams; tickling and itching at the end of the glans and prepuce; left testicle spasmodically drawn up to the abdomen; painful to the touch; frequent urging to urinate; urine turbid, becoming like gruel on standing; anxiety as if he had committed a crime, or feared reproach, with constant inclination to work; anxiety about the present and future; sadness, almost to weeping; fretfulness, disinclination to talk; indifference to the most important subjects.

Calcarea carb.—Sexual power diminished or imper-

fect; emissions premature; great prostration after coition, followed by weakness and trembling, especially in the knees, with headache, vertigo and night sweats; impotence, with increased sexual desire; during coitus; burning and stinging while the semen is ejaculated; frequent nocturnal emissions; pain in the spermatic cord, as if contracting; crushing pain in the testes; sexual desire increased in the evening and when walking, caused by lascivious fancies; erections only induced by handling followed by ejaculation on intromission, then weakness and excitability, anger and general giving way; flow of prostatic fluid after urinating and after stool; urging to urinate, aggravated on walking; sensation as though the act was not finished; pains in the urinary passage after wetting the feet, and through the bladder at night, with cutting on urinating; scrotum relaxed and hangs down; much mucus voided with the urine; urine turbid, with whitish, flaky sediment; fatty pedicle having a fatty smell on the surface; white, mealy sediment in the evening; urine copious and sour smelling; weakness of mind and body; apprehension and anxiety about health; fear they will lose their reason, or others will notice their confusion of mind; despair; mental application difficult; nervous relaxation, ill-humor, faintness, great debility and emaciation, with prominence of the abdomen and good appetite; dark circles around the eyes; palpitation of the heart; perspiration of the hands and feet; coldness of and dead feeling in the feet, especially at night. Frequently indicated for those who have led a rapid and unchaste life, and, having settled down to a moral and healthful state, suffer from excessive sexual desire and physical deficiency; more passion than physical power to carry out the act. Indicated in all conditions caused by sexual excesses.

Calcarea phosph.—Erections without desire when riding in a carriage; painful erections in the evening, with burning in the urethra and tension in the penis; cutting pains in the neck of the bladder and in the urethra before urinating; shooting pains in the root of the penis and bladder; cutting, drawing pains in the glans when sitting; urine copious with flocculent deposit, smells like strong tea; general tremb-

ling and weakness; mental or physical weakness and indifference.

Camphor.—Painful priapism, relieved by urinating; when standing, pressure and pain in the left side and root of the penis and groin; desire increased with delusions in respect to the object of embrace; nightly emissions; urine voided in a thin, small stream; dribbling; frequent and painful micturition ; strangury ; biting pains in the posterior part of the urethra when urinating, followed by pressure in the region of the bladder; burning and sticking pains in the urethra when walking; urine scanty, burning.

Cannabis Ind.—Penis relaxed and shrunken; sticking and burning sensation in the glans; satyriasis; painful erections after coitus; thrill prolonged, with more than a dozen ejaculations; the thrill may consist of intense burning with no ejaculations; during coitus scarcely any emission or ejaculation, but afterwards acute pains in the loins; erections when riding, walking or sitting, not caused by amorous thoughts; excessive discharge of prostatic fluid at night and during hard stool; stitches and burning in the urethra before, during and after micturition; sensation as though a gonorrhœal discharge was present; uneasiness in the urethra and penis with burning and frequent desire to urinate; oozing of white, glairy mucus from the meatus; urging after micturition, with much straining; constant ineffectual desire to urinate; dribbling of the urine after the straining has ceased; has to wait some time before the urine flows; has to force out the last drops with his hands; frequent micturition; the stream suddenly stops and then flows on again; urine colorless, copious; disinclination to physical efforts; weakness from short walks; desire to lie down in the day time.

Cannabis sat.—Penis swollen without special erection; frequent erections, with stitches in the urethra; on standing, dragging in the testes; coldness of the genital organs with warmth of the rest of the body. Impotence from sexual abuse.

Cantharis. — Priapism; satyriasis; spermatorrhœa resulting from gonorrhœa; great increase of sexual appetite, which is sometimes uncontrollable; erections violent and sometimes painful; erections continuous without sensation·

urethral irritation, with priapism and constant desire to urinate; seminal fluid bloody. Painful erections, severe at night, with contraction and sore pain the whole length of the urethra; uneasy and uncomfortable sensation in the glans penis, producing a desire to pull at the organ; cutting pains in the urethra before, during and after micturition, and burning pains through the whole urethra; discharge of a pasty, colorless liquid from the urethra; urine scalds and is passed drop by drop; frequent micturition; constant urging to urinate; great urging and tenesmus, always preceded by pains in the penis; pain at the base of the urethra extending to the meatus; burning pain in the seminal vesicles during and after coitus; discharge of blood from the rigid penis and the anus; pain before micturition; drawing in the back and thighs; urine bloody, contains bloody filaments, coagulated masses of blood and mucus, high specific gravity, turbid when voided; urine has a white sediment which adheres to the glass; sometimes an iridescent film; urine turbid, loaded with sediment. Insanity of masturbators; amorous frenzy; unchaste actions; shamelessness; eyes fiery, sparkling and protruding; oversensitiveness of all parts of the body.

Capsicum.—Violent erections occurring during the day and relieved only by the application of cold water; violent erections in the morning; trembling of the whole body during sexual excitement; loss of sexual power; coldness of the genitals, accompanied by cold chills down the back; loss of sensibility, with atrophy of the testes; coldness of the scrotum in the morning; frequent desire to urinate, difficult and in drops; burning pains in the urethra after urinating; itching and stinging pains on the glans; urine copious with white sediment. Vertigo; pressive headache, darting pains through the head, worse when at rest; peevish and sleepless.

Carboneum sulph.—Erections with nightly emissions; violent erections, with burning in the urethra; loss of sexual power; erections rare; ejaculations short and incomplete; constant fatiguing erections, speedily changing to impotence; indefinite coitus without ejaculation; scrotum shrunken and painful; testes small with diminished sensativeness to pressure; tickling in the fore part of the urethra as though a discharge

would appear; sexual organs relaxed; burning, sticking pains in the spermatic cord running deep into the abdomen, aggravated in the evening and at bedtime; cramping pains at the neck of the bladder during micturition, extending to the urethra, with similar pains in the anus and rectum; urging to urinate, with burning in the urethra and neck of the bladder; inability to retain the urine even an hour; urination painful and slow; bloody urine; turbid and pale; burning, smarting and cutting in the urethra during micturition; urine high in color, containing an abundance of carbonates and phosphates.

Carbo veg.—During coitus ejaculations too early, followed by a roaring in the head; emissions without sensation; excessive emissions which strain the nerves and cause burning in the fore part of the urethra; cutting and burning in the urethra on urinating; discharge from the urethra when straining at stool; loss of ejaculatory thrill; excessive emissions; burning in the fore part of the urethra; burning and cutting in the urethra when voiding the urine.

Causticum.—Discharge of prostatic fluid after stool; frequent emissions in old men; emissions every night and during the afternoon nap; impotence with ejaculation of semen during coitus; discharge of blood; burning in the urethra after urinating and after emissions; urging to urinate after walking; intermittent micturition in the evening; delay of the last drops of the urine; enuresis, with violent erections without desire; urine copious, then scanty, slightly acid, becoming turbid on standing; vertigo on looking upward or fixedly at anything.

China off.—Morbid excitability, with lascivious fancies; emissions caused by slight abdominal irritation; premature ejaculations, followed by great weakness; frequent nocturnal emissions after self-abuse; scrotum relaxed; itching and crawling in the scrotum at bedtime; tearing pains in the left testicle; sticking pains in the urethra when urinating; urethra sensitive when sitting or rising, with stiffness in the penis; burning and biting in the fore part of the urethra; urine whitish, turbid, depositing white sediment; mental indifference; pain in the small of the back when lying upon it; weakness of the knees; trembling of the hands. It is use-

ful for the weakness immediately following a sexual debauch, or when several emissions have occurred during the previous night, with nervous irritability and desire to be alone.

Chlorinum.—Impotence of recent appearance, with aversion to sexual intercourse; fear of impending danger; fears loss of reason; forgets names and places; disinclination to arise in the morning, accompanied by ill-humor; loss of flesh; aged appearance.

Clematis erect.—Burning pains in the penis on emission during coitus; long-continued erections, with aversion to coitus; erections frequent and strong; right spermatic cord sensitive, with drawing up of the right testicle; frequent, intense pain in the prostate; frequent urging to urinate during the day, with burning at the orifice of the urethra; micturition slow, urine voided in a thin stream, as if the urethra was contracted; mucous discharge sticking in the meatus and fossa navicularis; when not urinating, irritation in the fore part of the urethra; urine milky, with floating flakes of mucus; low-spirited, fear of approaching misfortunes; aversion to talk; fear of being alone; memory impaired; giddiness in the head.

Cobaltum.—Lewd dreams are frequent, with seminal emissions which awaken, and are accompanied by headache; voluntary and involuntary emissions are followed by backache, referred to the lumbar region, aggravated when sitting; emissions without erections; frequent micturition with flocculent deposit in the urine, burning in the urethra during micturition; frequent desire to urinate after drinking coffee; urine has a greasy pedicle.

Conium mac.—Impotence; imperfect erections; excessive seminal emissions resulting from sexual excesses or celibacy; seminal weakness, with erethism and premature emissions; flaccidity of the parts, with weakness in the back; emissions without erection; discharge of prostatic or other fluid from the urethra during stool and with every emotion; sexual organs very irritable; desire increased; emissions while caressing; frequent urging to urinate, with burning pains at the neck of the bladder and along the urethra; frequent micturition at night; discharge of mucus from the urethra after

urinating; cutting pains in the meatus in the morning; urine turbid, frothy, bloody; copious urine, voided by fits and starts; hypochondriacal; morose; avoids society; sad, anxious and low-spirited; vertigo, worse on turning in bed; difficulty in walking; numb feeling in the brain; dread of being alone, yet dreads society; melancholia of celibacy; sudden loss of strength, as if paralyzed; desire for sun's warmth; inability to sustain any mental effort; vertigo on lying down. Especially indicated in complaints from denial of carnal desires.

Cubeba.—Prostatic gland enlarged; impotence; weakness of the sexual organs; cutting and constricting pains on urinating; the last few drops of urine voided with pain; after micturition bladder still feels as if a portion was retained; urine frothy and copious.

Cuprum acet.—Impotence; penis easily becomes erected, but on intromission immediately becomes flaccid, sometimes followed by an escape of semen; during erection, tension in the perineum, often accompanied by rheumatic pains in the back and legs.

Digitalis.—Violent erections; involuntary seminal emissions without dreams, followed by great prostration, sadness and utter despair; frequent sensation at night as though emission would occur without pollution, and in the morning agglutinous moisture of the meatus; sexual power and quantity of seminal fluid diminished; bruised pain in the right testicle. Gloomy; peevish; great anxiety and apprehension about the future; dullness in the head, with a limited power of application; attacks of debility and faintness, especially after breakfast and dinner; great nervous weakness.

Dioscorea.—Sexual organs relaxed and cold, with great weakness of the parts; seminal emissions frequent, sometimes two or three times nightly, accompanied by erotic dreams, followed by weakness, especially about the knees, and possibly pain and spasm of the spermatic cord; strong-smelling sweat on scrotum and pubes.

Equisetum.—Violent erections; pain in the bladder not relieved by micturition; pain and tenderness in the region of the bladder with soreness of the testes and spermatic cord; pricking pain in the urethra during and after micturition;

constant urging to urinate, only a small quantity voided; sharp pains in the right testicle before urinating; the urine becomes cloudy on standing from excess of mucus.

Eryngium aquat. — Excessive erotic priapism; nightly erections without emissions; sexual desire suppressed, then excited with lewd dreams and pollutions; discharge of prostatic fluid from slight causes; urine contains semen; decrease of vital powers; lassitude; dragging pains in the lumbar region; general depression; urine scanty; sensation as though some of the urine remained in the urethra with continued burning, smarting and urging to urinate; urine voided in drops, with stinging and burning in the urethra and fossa navicularis during micturition; thoughts confused; difficult of concentration of mind; loss of energy; spirits depressed; nervous, constantly running about; faintness on rising suddenly, stepping down or turning the head quickly.

Euphorbium.—Erections at night, without emissions or lacivious dreams; emissions without cause when sitting; voluptuous itching of the prepuce, with discharge of prostatic fluid; pinching and burning pains in the left side of the scrotum, whole body seems relaxed and tired; discharge of prostatic fluid from relaxed penis; frequent desire to urinate with scanty discharge; urine voided in drops, with sticking pains in the penis; strangury; itching in the fore part of the urethra when not urinating; whitish sediment in the urine; cutting and sticking in the glans when standing; apprehensive, starting as from an electric shock at night when awake.

Ferrum.—Constant urging to urinate, accompanied with pains in the region of the kidneys, liver and chest; tickling in the urethra, extending to the neck of the bladder; tickling in the urethra, when beginning to urinate, gradually extending along the whole length of the canal; soreness of the urethra on urinating; tickling of the glans, with warmth and irresistable desire to urinate; urine light-colored with a whitish sediment.

Gelsemium.— Sexual organs relaxed, cold, and often accompanied by cold perspiration on the scrotum; frequent nocturnal pollutions without lascivious dreams; diurnal emissions; spermatorrhœa; emissions followed by languor;

impotence, with weakness and irritability of the seminal vesicles from masturbation; agreeable sensation in the urethra when micturating; sensation when urinating as though the urine had not been entirely voided; stream intermittent; frequent micturition of a clear limpid urine, which relieves dullness in the head; urine at times clear and limpid or milky and turbid; vertigo, accompanied by pain in the occipital region; irritability and languor. Acute prostatitis, following suppression of the urethral discharge.

Ginseng.— Erections frequent, occurring at night without polutions; frequently when sitting quietly engaged in engrossing business; sexual excitement; urine scanty; clear urine voided in a thin stream, when pressure is applied is voided in a broad stream; urine yellowish or lemon-colored; frequent urging to urinate, with burning and itching in the urethra, sometimes smarting in character, with tickling pains in the fossa navicularis.

Gnaphalium.—Erections and desire for an embrace; occasional stinging pains in the glans penis; frequent pain in the region of the prostate; bladder feels full and tense, even when just emptied; urine copious, pale and inodorous.

Graphites.—Violent erections, with uncontrollable sexual desire and excitement; during coitus cramps in the calves of the legs; no ejaculation follows the sexual act in spite of every exertion; impotence; absence of sensation during coitus, and no discharge of semen; gluey, sticky discharge from the urethra; voluptuous irritability; sticking and jerking pains in the testes; sexual debility; seminal emissions; biting in the urethra during micturition; urine voided in a thin stream as if the urethra was contracted; tickling in the urethra when urinating; at the meatus, after urinating; burning in the urethra between the acts of micturition; rawness and pressure at the root of the penis, with desire to urinate; urine clear when voided, but after a few hours it covered with an iridescent film; urine become turbid and deposits a white sediment; melancholy; inclined to grief; fear of approaching danger; forgetfulness; on awakening semi-lateral headache; fear of insanity; sexual thoughts fill the mind to the exclusion of all others, with voluptuous irritability of the sexual

organs; emaciation, with feeling of great debility; unhealthy condition of the skin.

Hamamelis. — Nocturnal emissions, without lascivious dreams and without cognizance of their occurrence; emissions without erections; neuralgic pains in the testes, extending to the stomach and abdomen, causing nausea and vomiting; frequent pain in the spermatic cord, extending into the testes; drawing pains in the testes; copious and frequent urination; profuse, light-colored urine, having a greasy deposit, which may rise to the top when shaken and have the appearance of pus.

Hepar sulph. c.—Discharge of prostatic fluid during stool; sticking pains in the prepuce and frenum; during caress, painful erections, accompanied with soreness and pinching pains in the penis, extending into the bladder; emissions without amorous desires or fancies; testicles relaxed; micturition impeded, must wait some time before the flow commences; can never completely finish the act, some urine always remaining behind in the bladder; the urine drops vertically from the end of the penis; urine pale and clear, becoming thick and turbid on standing, with a whitish sediment; urine dark and scanty or copious and pale, frequently presenting an oily film on standing; urine acrid and burning.

Hydrocotyle.— Impotence; no desire for sexual intercourse; drawing in the spermatic cords; scrotum relaxed; feeling of weight and heaviness in the prostatic gland; frequent desire to urinate; irritation of the neck of the bladder; urine turbid without sediment; weariness, dulness and heaviness of the body; gloominess, indifference and inclination for solitude.

Hyoscyamus.—Constant erections after meals; excitement and erections, without lascivious fancies; licentious mania; improper exposure of person, etc.; hallucinations, etc.

Ignatia.—Irresistible desire for an embrace, with relaxed penis; profuse nocturnal emissions; impotence, with weakness in the hips; urging and pressure about the penis, with violent erections, ending with emissions; erections during stool; paroxysms of pain at the root of the penis, relieved on walking, aggravated when standing or leaning against

the sacrum; biting and itching pains in the glans penis; pain in the neck of the bladder, aggravated when urinating, relieved by walking and eating; stitches and scraping pains in the middle of the urethra, worse in the evening and when sitting; burning and biting in the urethra, aggravated when urinating; during stool, discharge of much prostatic fluid; micturition increased in frequency; urine lemon-colored, with whitish sediment; urine turbid. This remedy is frequently indicated by its general symptoms in diseases of the genital organs caused by continence, grief, etc. Lascivious fancies, with sexual excitement, followed by weakness of the genitals and external heat of the body. Psychical impotence.

Iodium.—Priapism; violent and continued erections, without lascivious thoughts; frequent tickling and itching of the glans; sexual desire increased; seminal fluid increased; nocturnal emissions followed by weakness; testicles increased in size, followed by diminution in size and consistency, with impotence; increased frequency of micturition; polyuria; cutting and itching in the meatus urinarius; urine dark, turbid, milky, greenish yellow. It has been found of benefit in tubercular prostatitis.

Jatropha.—After excessive intercourse, aching in the testicles, with drawing pains extending along the inner side of the right thigh to the knee; spasm at the neck of the bladder, with desire to urinate; constant, frequent and difficult micturition; tickling in the fossa navicularis, with frequent micturition; stitches in the urethra; oozing of clear mucus from the urethra, when walking or sitting.

Kali brom.—Sexual excitement during light sleep, with erections and emissions, which awaken him, and of which he is conscious; nocturnal emissions; erections persistent and normal; impotence, with wasting of the organs; nocturnal pollutions, followed by great nervous irritability; pains, swelling and tenderness in the left spermatic cord and testicle; burning at the neck of the bladder, with sensation of a ball being forced from behind, then discharge of a half an ounce of liquid, like the white of an egg; frequent desire to urinate, with burning and smarting pains along the urethra; the act of micturition closing with a spasmodic constriction of

the urethra, and sharp pains extending back into the bladder, as though it was being distended with a large instrument, followed with a whitish-yellow discharge; urine copious, clear and yellowish; urine loaded with phosphates. This remedy is especially efficacious in sexual diseases the result of excesses where there is loss of memory, melancholia, impaired coördination, numbness and weakness in the limbs; nervous conditions from continence; weakness in the lower extremities, with great nervous excitability, after imperfect intercourse and masturbation; nervous conditions from continence; mental depression, with weakness in the lower extremities after sexual abuse or imperfect intercourse and great nervous excitability.

Kali bich.—Constrictive pain at the root of the penis on awakening in the morning; pain in the penis; sticking pains in the prostatic region, preventing walking; discharge of prostatic fluid during stool: frequent micturition, with burning along the urethra after the act; burning in the bulbous urethra and fossa navicularis when urinating and afterwards; urine turbid and thick, milky, with whitish sediment; urine high-colored, with pearl-white sediment and white film.

Kali carb.—Emissions followed by weakness; erections, with voluptuous dreams; coition, without emission; violent erections during sleep; painful and spasmodic contraction of the spermatic cord; soreness and bruised pain in the scrotum; itching of the scrotum, preventing sleep; drawing, tearing, burning sensations, with tension and itching of the glans or meatus, becoming tearing and itching; tearing at the neck of the bladder when not urinating, with cutting pain during the act; burning and cutting pain in the urethra during and after urinating; urging desire to urinate but obliged to wait some time for the flow to commence; discharge of prostatic fluid after micturition; urine dark yellow and cloudy; turbid, with much sediment on standing.

Kali iod.—Erections tardy; coition painful, prolonged, with no emission; atrophy of the testes; frequent micturition; increased micturition at night; bladder irritable; urine

pale and watery; increase of the ammonia-magnesia-phosphates. Sterility from specific disease.

Lachesis.—Excessive desire, with constant erections at night; during the day amorous thoughts, and at night lascivious and quarrelsome dreams; awakening in the morning, with pain and bruised feeling in the loins with relaxed penis; erections feeble; inability to accomplish the act; emissions during the mid-day nap, followed by weakness and headache; pollutions at night, followed by unconsciousness and weakness; seminal fluid has a penetrating odor; urinary symptoms are aggravated by alcohol in all forms; discharge of a milky fluid from the urethra; discomfort in the region of the bladder; slimy sediment in the urine; milky, gleety discharge after micturition; cutting, sticking pains in the fore part of the urethra; pressure and burning in the urethra during urination; jealousy; incessant talk; nervous palpitation; can bear nothing tight around the throat or abdomen. This remedy is especially useful in the early stages of sexual derangements.

Ledum. — Excessive and constant erections; nocturnal pollutions, without dreams; seminal fluid bloody and watery; constant desire to urinate; burning in the urethra after urinating; stitches in the meatus.

Lithium.—Pains in the right side of and at the root of the penis; throbbing stitch-like pains in the penis when sitting; twitching stitch-like pains in the seminal vesicles, superpubic region and in the spermatic cord; tenesmus before and after micturition, urine copious, clear and frothy; urination followed by sensitiveness and pain in the middle of the urethra; fugitive pains in the region of the bladder, especially on the right side, before urinating; afterwards extending to the left spermatic cord.

Lycopodium.—Erections imperfect or absent; parts cold, small, relaxed and shriveled; licentious thoughts cause no erection, though they may be persistent and the inclination may be ever present; voluptuous dreams and fancies, with excessive emissions, followed by great exhaustion; dread of sexual intercourse after too much indulgence; complete impotence; erections absent or imperfect; falls asleep during coition, without emissions; drawing and sticking pain in

the seminal ducts; sticking, griping, pinching pains in the testes; scrotum relaxed; sticking, cutting, jerking, drawing pains in the penis; pain in the perineum when sitting; pain in the region of the bladder and scrotum; discharge of prostatic fluid; thin and yellowish discharge from the urethra, with burning after micturition; constant desire to urinate, with tickling in the urethra; micturition ceases suddenly with the discharge of a few drops of slimy fluid, with pain in the urethra and groin; frequent micturition at night, with interrupted urination and subsequent dribbling of the urine; urine burning, of ammoniacal odor; urine turbid, as if mixed with brick dust; urine copious, with red, sandy deposit; low-spirited, melancholy, despondent, desires to be alone, dreads the company of men; general prostration and emaciation, faintness at certain hours of the day; gastric disorders. The old man's balm; mental torpor; confusion of thoughts and words.

Magnesia carb.—Sexual desire diminished, and, while erections appear slowly, intercourse terminates naturally; discharge of prostatic fluid; during emission of flatus; frequent micturition with smarting in the urethra, during and after the act; stitching pains in the fore part of the urethra; urine has a whitish sediment.

Magnesia mur.—Violent erections; if the desire is not satisfied it is followed by pain in the testes, spermatic cords and small of the back, with soreness and tenderness of the testes; frequent emissions; morning erections, with burning pains in the penis; urine voided in drops, some always seeming to remain behind; micturition only possible by exertion of the abdominal muscles, and it may even be necessary to press upon the abdomen with the hands to facilitate the act; frequent micturition day and night, accompanied with burning in the urethra and frequent erections; involuntary micturition when walking, yet on attempting to urinate no urine is passed; urine almost opaque, as if mixed with yeast; deposit copious.

Manganum.—Drawing pains and weakness in the spermatic cords and testes; itching pains within the scrotum, relieved by manipulating the parts; itching of the corona glandis;

burning, dragging pains from the seminal vesicles to the glans; cutting pains in the region of the bladder in the evening when sitting, aggravated when standing and walking; cutting and sticking pains in various portions of the urethra, when not urinating; increased frequency of micturition.

Mercurius corr.—Violent erections, with great desire; coitus slow, emission delayed; sticking pain in the right testicle; sticking pain in the fore part of the urethra in the evening after urinating, when walking, accompanied with pain in the anus and left testicle; burning during micturition; itching in the orifice of the urethra, with burning, biting and sticking pain through the urethra during urination; micturition frequent, painful, difficult, ineffectual.

Mercurius sol. H.—Impotence; emissions at night; frequently bloody in character; cutting, biting and burning in the urethra when beginning to urinate, increased toward the end of the act; frequent urging to urinate, after a nocturnal emission; urine looks as if mixed with meal; urine clear at first, but afterwards as if mixed with chalk, followed by pain and burning in the urethra and when touching the penis. Acute suppurative prostatitis.

Mezereum.—Frequent erections during the day, becoming violent in the evening, with yawning and sleepiness; testicles painful to pressure; drawing and stitching pains in the spermatic cords; after emission or sexual excitement, crawling over the whole body, as from lasciviousness; swelling and heat of the penis; stitches in the meatus; tearing and jerking pains in the penis and right side of the abdomen; after urination, discharge of a few drops of blood; between the acts of urination, discharge of a watery mucus and tenacious transparent fluid; sticking, crawling pain in the urethra, with emission of fluid; cutting pain in the fore part of the urethra after micturition; drawing, cutting pains at the neck of the bladder when walking; frequent micturition; dark, wine-colored urine, becoming turbid on standing; bloody and hot, with reddish sediment.

Moschus.—Increased sexual desire; involuntary emissions; painful emissions without erections; great pain in the penis, followed by relaxation; coitus followed by nausea and

vomiting; during erection, burning in the urethra; urine clear and copious, or scanty and thick as yeast.

Mygale.—Violent erections of the penis; penis curved, exquisitely painful.

Naja.—Great sexual desire, with psychical impotence; awakes at night, with vivid imaginations and involuntary emissions, followed by prostration and great distress; stinging, burning pains along the right side of the penis; uneasiness and pressure in the region of the bladder; urine straw-colored, loaded with mucus.

Natrum carb.—Erections in the morning, without sexual excitement; frequent erections during the day, often violent and painful; nocturnal pollutions, followed next day by fretfulness and discontent; lascivious dreams, without erections; intercourse incomplete; erections imperfect, ejaculation too early; heaviness, pain and pressure in the testes and spermatic cords; priapism towards morning; emission, without desire, followed by tensive cutting pains in the penis; excessive irritability of the genital organs; coitus always followed by physical weakness; glans penis swollen; pain back of the glans, with erections after coitus; emissions retarded during an embrace; nocturnal emissions, even immediately after coitus; discharge of prostatic fluid during stool or voided with the urine; tearing and smarting in the urethra during micturition; pain in the urethra and testicles; burning in the urethra during and after micturition; frequent desire to urinate, urine may be scanty or copious; desire to urinate continues after finishing the act; when voiding the last few drops of urine cutting in the bladder and discharge of a few drops of mucus; frequent micturition at night; urine sour-smelling, offensive, becomes turbid soon after passing.

Natrum mur.—Emissions even after coitus; great weakness after seminal emissions; erections not strong; ejaculations weak; pollutions followed by backache, night sweat, weakness in the limbs and melancholia; nightly pollutions, with or without erethism or lascivious dreams, followed by weakness of the back; trembling of the knees, as if they would give way; sudden voluptuous irritation when sitting, relieved by walking; sexual erethism, followed by depression

and weakness; emission delayed or absent during coition; ejaculation too early; emissions with the morning stool; pain in the testicles; stitching, pinching pains transversely in the neck of the bladder when walking; after urinating, discharge of a thin, yellow, purulent liquid, soiling the linen; may cause burning and itching in the urethra; discharge of prostatic fluid, with lascivious thoughts, without excitement and without erection; constant moisture of the meatus, with drawing pains in the spermatic cord; sticking pains in the fossa navicularis during and after micturition and after coitus; burning and cutting in the urethra towards the close of micturition, followed by thin moisture; agglutination of the meatus in the morning; urging to stool, with constriction in the rectum; dribbling after micturition, with pressure in the rectum so he could not sit down; urging to urinate, with frequent micturition; urine turbid, with strong odor, milky in the morning, depositing a white sediment; urine clear, greenish, reaction feebly acid, frothy on shaking.

Natrum phos.—Pollutions nightly, with or without erethism or lascivious dreams, but followed by weakness in the back; trembling in the knees, as if they would give way.

Nuphar lut.—Impotence; entire loss of sexual desire and erections; diminution of carnal thoughts and inclination; voluptuous ideas and imaginations do not cause erection; nocturnal pollutions; discharge of seminal and prostatic fluid during stool and with the urine.

Nux vom.—Involuntary emissions; erections easily excited; during an embrace the penis often becomes relaxed; nocturnal pollutions; pollutions without erections, followed by relaxation of the lower part of the body, coldness of the feet; emissions occur mostly toward morning, followed by headache and difficulty in walking; constrictive and stitch-like pains in the right testicle and spermatic cord; pain in the neck of the bladder before micturition, with burning and tearing during the act and pressure afterwards; discharge of tenacious mucus during micturition; constriction in the fore part of the urethra, extending backwards; itching and burning in the urethra when urinating; frequent, painful, ineffectual urging to urinate; incontinence of urine; urine

turbid, watery, pale, followed by a discharge of thick, whitish matter; nervous depression; irritability; over-sensitiveness to external impressions; inclined to fault-finding; habitual maliciousness; debility of the nervous system; sensation of heaviness of the body, alternating with lightness; aversion to motion in the open air; attacks of faintness; gastric and bilious disturbances; congestion of the abdominal organs. Especially useful in derangements resulting from self abuse or excesses at an early age.

Opium. — Erections during sleep, but impotent when awake; involuntary emissions at night, even when awake; procreative power lessened; tenesmus on beginning to urinate; is obliged to wait on account of spasm of the sphincter vesicæ; stream interrupted; micturition possible only after long exertion; urine turbid, scanty, brown, with iridescent film; trembling of the whole body, with external coldness and jerking of the limbs; stupid, indifferent.

Osmium.— Priapism; rigid erections after midnight and on awaking in the morning; continuing after rising without special sexual desire; during coition, long-lasting emission of semen; sexual acts suppressed; conjugal act accomplished by volition, the usual thrill and ejaculation being absent; pain in the testicles, preventing sleep, and in the spermatic cord, extending into the testicles; stinging, throbbing, pinching pains on the left side of the glans and in the tip of the penis.

Paris quad.—Sexual erethism, with rigid erections; desire increased, with voluptuousness during coition; nocturnal pollutions; burning, drawing and sticking in the fore part of the urethra between and during micturitions; frequent desire and urging to urinate; has to wait a few minutes before the act can be accomplished; tenesmus after urinating; urine turbid and on standing becomes covered with a fatty film.

Petroleum. — Frequent erections without amorous thoughts; violent desire, with itching of the genitals on awakening in the morning; emissions followed by anxious heat; discharge of mucus with the urine; jerking in the urethra, as in ejaculation of semen; cutting in the neck of the bladder, at the beginning and end of micturition, and during the act so severe that the urine may stop; frequent desire to

urinate, only a little being voided; burning at the neck of the bladder, involuntary micturition; urine bloody, turbid, offensive, depositing a reddish film, which adheres to the vessel; excited, irritable; inclination to anger and to scold; sadness, despondency; great debility and trembling; fainting, with ebullitions; heat, pressing on the heart, palpitation; sleep, with distressing dreams, as though some one was lying alongside of him

Phosphorus. — Uncontrollable sexual desire; frequent emissions, with great feebleness, loss of strength and flesh; abnormal sexual appetite and excitability, with burning, tingling and formication along the spine; erotomania; great sexual excitement; revealing the person without shame and seek to gratify debased appetites without regard to time or place; sexual mania; constant torment for an embrace, followed by impotence; discharge of seminal fluid during stool; nightly emissions, with great prostration; discharge of fluid from the urethra during stool, after micturition, from friction of the clothes or when talking to a woman; genital organs relaxed, with moisture at the meatus as of prostatic fluid; discharge of prostatic fluid when walking; moisture at the meatus, yellow and causing a yellow stain; cutting and sticking pain in the anus and perineum when at stool and urinating; pain in the penis, with cramp-like pain in the upper part of the scrotum, aggravated when urinating; burning, sticking pains in the fore part of the urethra during micturition, often extending forward from the scrotum when not urinating; discomfort and biting in the fore part of the penis; dribbling and burning after urinating; urination difficult and burning; urine covered with an iridescent, fatty film; whey-like sediment, whitish, like white sand; urine offensive, having the odor of violets; urine milky white; contains an abundance of triple phosphates, epithelium, etc. Great excitability; becomes easily vexed and angered; never wants to be left alone in a room; mental application difficult, cannot think; easily fatigued; vertigo on arising in the morning or on rising from a seat; dull pain in the head; trembling on beginning to walk; tired feeling; difficulty in walking; heaviness of the back and limbs; locomotor ataxia from sexual excesses.

This remedy will be indicated not only in satyriasis, but is required in impotence and other sexual disorders which have resulted from over-excitability or abuse of the genital organs. Impotence from chastity is frequently cured by this remedy. It is also indicated in those who have lived a rapid life and are trying to restrain their passions and are unable to do so from local erethism, etc.

Phytolacca.—Frequent gurgling sensation in the prostate, grinding and sharp pains, sometimes paroxysmal, shooting up the spermatic cords, followed by soreness; urine copious, clear and watery, chalk-like sediment.

Platinum.—Sensitiveness and pressure in the mons veneris, with internal shaking and external coldness, followed by oppression, anxiety and exhaustion; sexual desire inordinately increased, with violent erections, especially at night; excessive sensitiveness and titilation in and upon the genital organs, with an almost uncontrollable desire for an embrace; satyriasis; sexual desire and strength abnormal; micturition frequent, but slow; urine red, with white clouds, becoming turbid on standing; spasms and convulsions from abuse of the sexual organs previous to puberty; the mental symptoms are characterized by haughtiness, egotism and a feeling of self-superiority; looks upon everyone as being inferior; objects appear smaller than normal; home associations appear strange; great excitability of the nervous system; sees horrid objects, demons, ghosts, etc.; hysterical conditions, crying and laughing at inopportune times and places. In boys this drug is frequently required where they have masturbated to excess before puberty, resulting in hollow eyes, yellow skin, melancholia and sheepishness; tendency to spasms and epileptiform seizures; consciousness not often lost, the limbs are drawn up and separated. Grauvogl says this remedy will cure mental imbecility resulting from masturbation.

Plumbum.—Impotenc; penis flaccid; frequent erections, with spasmodic contraction of the testes, and emissions during the colic; violent emissions on the slightest provocation, scanty during coition; shooting pains through the testicles, almost causing faintness; paroxysmal jerking pains in spermatic cord, extending into the left testicle; induration of the

prostate; pain, itching and burning in the neck of the bladder and perineum; micturition difficult, by drops a little at a time.

Pulsatilla.—Itching in the region of the seminal vesicles, causing inclination for an emission without erection, and without amorous thoughts; nocturnal pollutions, followed by lassitude and heaviness in the limbs; sticking, cutting pains, with pressure at the neck of the bladder, without the desire to urinate; burning in the neck of the bladder, as if it would compel micturition; backache, extending into the hips. Acute prostatitis.

Rana bufo.—Imbecility and loss of decency. Useful in convulsions from masturbation and in those who seek solitude, to practice the vice. Fits during coition; constant pulling at the penis.

Sabadilla. — Painful erections in the morning without desire; insensible to excitement; nauseated by amourous caresses; penis relaxed, accompanied by lascivious dreams and emissions; afterwards painful erections and extreme lassitude; desire lost; pollutions, followed by loss of power in the extremities; genitalia relaxed; mind filled with voluptuous thoughts, which cannot be expelled; intermittent, bruised pain in the left testicle; slow, undulating motion in the testicles, with tingling from thigh to thigh; drawing, beating, sticking, intermittent pains in the tip of the penis; constant desire to urinate, with burning in the urethra; scalding when urinating; urine muddy, mixed with blood.

Sabal ser.—Weakened sexual power; impotence; loss of ejaculatory thrill; discharge of yellowish, watery prostatic fluid; prostate enlarged, with dull, throbbing, aching pain at the neck of the bladder; sharp pains in the testes and spermatic cords, with depression of spirits; urinary retention; dribbling of urine; lack of mental vigor. Muscular jerking of the body on first lying down, which awakens him from sleep.

Sarsaparilla.—Desire for coitus, with restless sleep and emissions; pollutions bloody, with lascivious dreams; the least carnal excitement causes emissions without sexual feeling; pollutions followed by backache, prostration, vertigo, etc.; tearing pain from the glans to the root of the penis; burning

pain in the urethra during micturition; urine copious, containing elongated flakes; urine turbid when voided; on standing, clay-colored sediment and iridescent pedicle; strangury, with discharge of mucus and a white, turbid matter; when urinating the stream frequently stops, with burning and straining; swelling and soreness of the spermatic cord, especially after sexual excitement.

Secale corn.—Erections vigorous and numerous, even after coition; dragging in the spermatic cord; testes draw up to the groin; micturition frequent and copious; burning and cutting in the urethra, during micturition.

Selenium.—Impotence, with lascivious thoughts; carnal desires, mental not physical; erections slow and incomplete; emissions premature; seminal discharge thin and without odor; seminal discharges when walking; discharge of a sticky watery substance before and during stool; dribbling of prostatic fluid, with disagreeable sensation; dribbling of prostatic fluid, after urinating walking and sitting; always obliged to urinate after stool; sensation as if a biting drop was forcing its way out of the urethra; urine dark and scanty, with the odor of violets; jerking pains in the testicles; general relaxation of the system, all conditions worse after sleep and from mental or physical exertion; easily fatigued; irritability; headache, sleeplessness and mental confusion; paralytic weakness of the spine; wants to sleep from sheer exhaustion, yet is always worse after sleep. Pollutions are followed by irritability, mental confusion, paralytic weakness, etc.

Sepia.—Coition and nocturnal emissions, followed by erections; erections painful when sitting, after the bath; erections strong, but emissions premature; intercourse followed by vertigo, weakness of thought, relaxation of the body, low-spiritedness and nervousness; imperfect emissions, with lascivious dreams; intercourse unsatisfactory; seminal fluid watery; heat, pinching, cutting, tearing, rheumatic pains in the testicles and along the thighs; discharge of a milky fluid from the urethra after micturition and with a difficult stool; burning in the fore part of the urethra after micturition; tearing and smarting near the meatus; burning in the fore part of the urethra; pressure in the bladder, must wait a long

time before the urine comes; burning in prostatic urethra without desire to urinate; urine copious; general relaxation, fatigue and exhaustion; staggering gait and forgetfulness from sexual excesses; coitus is followed by restlessness and anxiety; chronic headaches.

Silicea.—Sexual desire increased; violent erections during the day, at night without desire; discharge of prostatic fluid when straining at stool; dragging pain in the prostate, extending forward; testicles retracted; pain in the testicles and spermatic cord; worse at night; urging to urinate at night, with erections, burning and smarting in the urethra; cutting and burning in the urethra when urinating; sticking in the fore part of the urethra; exhaustion; patient dreads exertion of mind or body, but when the work is commenced they do fairly well; numbness in the toes, fingers and back, with constipation.

Solidago virgo aurea.—Doctor Gallavardin records the fact that the first dilution of this remedy in seven cases, ranging from 42 to 74 years of age, in which catheterization was necessary for weeks, months and years, were thoroughly cured, the indications being scanty urine, with dark brown sediment, pains in the kidneys, etc.

Stannum.—Erections at night and emissions with lascivious dreams, especially when sleeping on the back; voluptuous excitement of the whole body, even to a pollution; erections at night without emissions, and without lascivious thoughts; drawing, tearing pains in the testicles; discharge of prostatic fluid after hard stool; burning in the urethra, and sprained pain in the upper part, during and after micturition; biting and crawling in the orifice of the urethra and along the canal when not urinating; jerking pains in the penis, almost as if ejaculating semen; pain in the neck of the bladder and along the urethra, after urinating; seems as if more urine would pass, and some drops follow, when the pressure is worse; frequent micturition at night, in a thin stream; dribbling sensation, as if the bladder were not empty, with erections; burning at the neck of the bladder and frequen, desire to urinate; fullness in the bladder; urine scanty and offensive; frequent desire to urinate; great anxiety and rest-

lessness; irritable, sadness, disinclination to talk; vertigo, seems as if all objects were too far off; pains as if paralyzed in the extremities; emaciation, weakness and trembling, felt more when slowly exercising or walking.

Staphisagria.—Prostatic irritation and posterior urethritis, the result of unnatural or perverted thoughts or habits. This drug is frequently indicated for the results of perverted sexual habits and the dwelling of the mind upon these subjects, more than the result of any excessive sexual habits or vice. These conditions are frequently accompanied in the male by prostatic irritation or posterior urethritis. Useful in masturbation and other sexual perverts who become over-sensitive and easily angered; in these cases this remedy is frequently of untold value, as well as for those nervous derangements of highly nervous patients, when continence is enforced from reading and pondering on impure literature; nervous system worn out; weakened and undermined condition of brain and spinal cord, caused by perverted sexual habits, or the result of a mental state which has allowed the mind to dwell too much on sensual thoughts; gloomy; apathetic condition; shy, peevish; prefers solitude, and avoids the company of the opposite sex; the face appears shrunken; eyes listless, deep-set and hollow, surrounded by dark rings; nose pointed; great emaciation. This remedy is characterized by constant suspicion; chip on the shoulder waiting for some one to knock it off.

Sulphur.—Genital organs relaxed; testicles and scrotum hang down; penis cold; erections infrequent; involuntary discharge of spermatic fluid, with burning in the urethra; if coitus is attempted the ejaculation occurs too early, almost at the first contact of the parts, and before intromission; nocturnal pollutions frequent; discharge of prostatic fluid after micturition; seminal fluid thin, watery and almost inodorous; tingling in the testicles; sticking pains in the neck of the bladder passing through the anus, with soreness on pressure; dragging and pressure in the prostatic region, after micturition, with sensation as though the urine was retained by contraction of the sphincter, with the same sensation in the anus; urging to urinate at night, with cutting pains over the sym-

physis pubis; frequent urging to urinate, with voluptuous pressure reaching as far as the anus; discharge of prostatic fluid from the urethra in long threads, after micturition and stool; sticking in the fore part of the urethra in the morning; painful ineffectual desire to urinate; retention of urine; hypochondriacal; faintness; low-spiritedness; peevishness; irritability; difficult thought and speech; heat on top of head; cold feet; backache; weakness in the lower extremities; unable to digest milk or farinaceous food; chronic prostatitis; profoundly melancholy; forgetful; constant pain upon the top of the head. Useful for the bad results following sexual excesses.

Sumbul.—Desire absent, from physical weakness; erections few and without pleasurable sensations.

Thuja.—Prostatitis following gonorrhœa; impotence after gonorrhœa; painful erections at night; nocturnal pollutions; watery discharge from the urethra.

Tribulus ter. (Indian name, Ikshugandha.) — It has proved useful for sexual disorders caused by sexual excesses, by irritation or chronic inflammation of the prostatic gland, seminal vesicles, etc., or masturbation, and both diurnal and nocturnal emissions. Also for impotence caused by masturbation and accompanying spermatorrhœa, especially when the vice has not been committed to such an extent as to have ruined the nervous system, and for partial impotence or seminal debility caused by excess or impotence produced by diseased state of the testes, with resulting thin and watry secretions. In impotence accompanied by such urinary trouble as painful micturition, inability of the bladder to keep the urine for a long time, etc. It is more suitable in partial impotence and seminal debility than a thoroughly confirmed case of impotence where sexual pleasure and erection are entirely lost. It is used in painful micturition, calculous affections, urinary disorders and spermatic derangements. Of great benefit for old persons getting weak sexually day by day. Dose, 10 to 20 drops of the θ three or four times a day.

Ustilago.—Erections frequent during the day; irresistible desire to masturbate: pain in the testicles, sometimes neuralgic in character, sometimes causing a faint feeling, genitalia

relaxed, with a cold sweat upon them; eratic fancies, followed by prostration, dull pain in the back, and irritability.

Veratrum vir.—Frequently indicated, according to its general symptomatology, in acute prostatitis and acute seminal vesiculitis.

Zincum.—Emissions at night without lascivious dreams; ejaculation premature; spermatorrhœa; neuralgic pains in the spermatic cord, with headache and depression of spirits; discharge of prostatic fluid; after painful micturition, flow of blood; urine discharged in a thin stream, with dribbling; cutting, drawing, tearing pains in the fore part of the urethra; urine yellow, depositing white flakes; the last urine voided has a turbid appearance; these patients cannot keep quiet, must be in motion all the time; hypochondriacal. Useful in spermatorrhœa following long-lasting self-abuse, with face pale, sunken, and blue rings around the eyes.

INDEX.

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and the treatment of chronic cystitis is excellent. The article on stone covers the subject admirably. Purely functional diseases which in the ordinary text-book are simply mentioned, are here taken up individually and in a manner which cannot be misunderstood. The article on Syphilis is exceptionally good; eighty-three pages are devoted to ætiology, symptoms, cutaneous lesions, treatment," etc.

From **The Homœopathic Eye, Ear and Throat Journal.** "This work covers a field hitherto unfilled in homœopathic literature. Its thirty-nine chapters are an able exposition of the subject from all standpoints, while the special therapy of the various diseases is very complete and valuable. Dr. Carleton, who has had an extended experience in this special line, has presented a timely book. It also marks the appearance of the well-knows firm of Boericke, Runyon and Ernesty as publishers of homœopathic works. They are to be congratulated upon the excellent appearance of their first venture, which is typographically all that could be desired, and an admirable exposition of the printer's art."

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Therapeutics of the Eye. By Dr. Charles C. Boyle, M. D., O. et A. Chir. Surgeon to the New York Ophthalmic Hospital; Professor of Ophthalmic and Aural Therapeutics in the College of the New York Ophthalmic Hospital, etc., etc. 404 pages. Cloth, $3.50 net; by mail $3.72. Half morocco, $4.50 net; by mail $4.72.—A reference work, divided for convenience for consultation into three parts: Part I. Remedies alphabetically arranged with the therapeutics relating to eye symptoms. Part II. Affections of the eye, under which are given the different remedies with their applied therapeutics. Part III. A repertorial index, alphabetically arranged.

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This work is based upon the author's lectures at the Colleges in which he is Professor of his specialty, and he has treated the subject comprehensively, yet without omission of necessary detail. The work is divided into sections, each considering some large division of the Nervous System and introduced by description of the finer anatomy assisted by illustrations. The dominant note of the book is Homœopathy as given by Hahnemann's Organon.

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